








## Part III Scientific Program





### 1. Opening, Photo, Plenary and Closing Sessions

Conference Registration, Nov 12(Mon), 8:00~ Registration desk opens at the Entrance of Bunkyo Hall

Opening session [Nov. 12 (Mon), 8:30-9:50], Place: Plenary Hall, Chair Yoshihiko Uesugi	
	<b>8:30-8:40: Kouetsu Yamazaki:</b> Opening address from President of Kanazawa University
	<b>8:40-8:45: Kunioki Mima:</b> Opening address from IOC Chairman
	<b>8:45-8:50: Mitsuru Kikuchi:</b> Opening address from AAPPS-DPP chair
	<b>8:50-9:00: Akio Komori:</b> Opening address from President of NINS
	<b>9:00-9:20: K. Mima and B. Wan</b> Introduction of U30 and U40 winners
	<b>9:20-9:40: 2018 S. Chandrasekhar Prize Ceremony</b> M. Kikuchi: Introduction of 2018 S. Chandrasekhar Prize Winner Ravindra G. Kumar on behalf of R. Dewar (committee chair): Certificate/ Citation Abhijit Sen (IPR): Medal, Jung-Sik Yoon : Cash Prize Recipient's address: Toshiki Tajima Photo with Laureate [inc. U30& U40]
	<b>9:40-9:50: Kuru Ratnavelu:</b> Next conference APPC14 from President of Malaysian Institute of Physics



**Photo session and Coffee Break, [9:50-10:50], Place: Bunkyo Hall**

Group photo will be taken from the stage (Y. Uesugi)





Plenary session 1 [10:50-13:00], Place: Bunkyo Hall, Chair Akira Hasegawa	
	10:50-11:00 : Akira Hasegawa (Forward)
	<b>P1 (11:00-11:30): Toshiki Tajima: University of California, Irvine</b> [2018 S. Chandrasekhar Lecture] Wakefields: laser, toilet science, and gamma-ray bursts
	<b>P2 (11:30-12:00): Grudas Ganguli: US Naval Research Laboratory</b> Understanding Space Plasmas Through Laboratory Experiments
	<b>P3 (12:00-12:30): Yi-Kang Pu: Tsinghua University</b> The influence of electrode surface condition on the discharge properties in a capacitively coupled plasma
	<b>P4 (12:30-13:00): Kazuo Makishima: the University of Tokyo</b> Physics of the Largest-Scale Hot Plasmas in the Universe

**Lunch [13:00-14:00] Delivery Place: 2<sup>nd</sup> floor of Bunkyo hall, 410 for reserved, 406 for non-reserved, CCI hall for pre-paid**





## *Parallel sessions in the afternoon*

<b>Evening session1 [Nov.13 (Tue), [19:00-20:00], Room: CCIHall, Chair: X. Duan &amp; R. Matsumoto</b>	
	<b>EV1-1</b> <b>Delong Luo: ITER-China</b> Chinese National Fusion Program
	<b>EV1-2</b> <b>Toru Yamada: ISAS</b> Future Vision and Plan for the Astronomical Space Missions in Japan

**Conference Registration, Nov 13(Tue), 8:00~ Registration desk opens at the Entrance of Bunkyo Hall**



<b>Plenary Session 2 [Nov. 13 (Tue), 8:30-10:30], Place: Bunkyo Hall, Chair: Baonian Wan</b>	
	<b>P5 (8:30-9:00):</b> <b>Yunfeng Liang: Institute of plasma physics, CAS</b> Control of Edge-Localized Mode in Magnetically Confined Fusion Plasmas
	<b>P6 (9:00-9:30):</b> <b>Daniel Lathrop: University of Maryland</b> Helicity and reconnection of vortices in quantum fluids
	<b>P7 (9:30-10:00):</b> <b>A.A. Mamun: Jahangirnagar University</b> Solitary and Shock Waves in Dusty Plasmas, and Some Open Issues
	<b>P8 (12:00-12:30):</b> <b>Chao Chang: Xi'an Jiaotong University (U40 winner)</b> Intense microwave plasma and electromagnetic undulator for FEL

**Coffee break: 10:30-11:00**





<b>Plenary Session 3 [Nov. 13 (Tue), 11:00-13:00], Place: Bunkyo Hall, Chair: Kunioki Mima</b>	
	<b>P9(11:00-11:30):</b> <b>Ryosuke Kodama: Osaka University</b> High Energy Density science with high power lasers in Japan
	<b>P10(11:30-12:00):</b> <b>Peter H. Yoon: University of Maryland</b> Dynamic role of kinetic plasma processes in the solar wind
	<b>P11 (12:00-12:30):</b> <b>Ken Ostrikov: Queensland University of Technology</b> Shrinking the plasma: why not the pores?
	<b>P12(12:30-13:00)</b> <b>Antonius Donne: FUROfusion</b> Strategy and challenges of the revised European Fusion Roadmap

**Lunch [13:00-14:00], Delivery Place: 2<sup>nd</sup> floor of Bunkyo hall, 410 for reserved, 405 for non-reserved, CCI hall for pre-paid**





## *Parallel sessions in the afternoon*

<b>Evening session 2 [Nov. 13 (Tue), 19:00-20:00], Room CCI Hall, Chair: A. Sen, B. Wan</b>	
	<b>EV2-1:</b> <b>Tony C. Kim: Air Force Office of Science &amp; Research</b> Overview of Air Force Office of Science & Research (AFOSR)
	<b>EV2-2:</b> <b>Mitsuru Kikuchi: AAPPS-DPP</b> Status of AAPPS-DPP

<b>Conference Registration, Nov 14(Wed), 8:00~ Registration desk opens at the Entrance of Bunkyo Hall</b>
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<b>Plenary Session 4 [Nov. 14 (Wed), 8:30-10:30], Place: Bunkyo Hall, Chair: Hyeon Park</b>	
	<b>P13 (8:30-9:00):</b> <b>Yong Kyo In: UNIST</b> Critically resolved non-axisymmetric field physics in KSTAR
	<b>P14 (9:00-9:30):</b> <b>Masahiro Hoshino: the University of Tokyo</b> Particle acceleration in plasma universe
	<b>P15 (9:30-10:00):</b> <b>Steven Tobias: University of Leeds</b> Flux Expulsion and Dynamos
	<b>P16(10:00-10:30):</b> <b>Ho Jun Kim: Dong-A. University/Samsung Electronics</b> Numerical Simulation of Semiconductor Fabrication System

*Coffee break: 10:30-11:00*





<b>Plenary Session 5 [Nov. 14 (Wed), 11:00-13:00], Place: Bunkyo Hall, Chair: Kazunari Shibata</b>	
	<b>P17(11:00-11:30):</b> <b>Ravindra Kumar:Tata Institute of Fundamental Research</b> Relativistic electron physics in ultrahigh intensity laser plasma interactions
	<b>P18(11:30-12:00):</b> <b>Xian-Tu He: Institute of Applied Physics and Computational Mathematics</b> Design and experimental progress of hybrid- drive ICF ignition on SG-III laser facility
	<b>P19(12:00-12:30):</b> <b>Fouad Sahraoui: University Pierre &amp; Marie Curie</b> Kinetic scale turbulence in space plasmas
	<b>P20(12:30-13:00):</b> <b>Shigeo Yoden: Kyoto University</b> Hierarchy of numerical model simulations on the equatorial QBO-like oscillations in the stratosphere-troposphere coupled system

<b>Lunch [13:00-14:00], Delivery Place: 2<sup>nd</sup> floor of Bunkyo hall, 410 for reserved, 405 for non-reserved, CCI hall for pre-paid</b>
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*Parallel sessions in the afternoon*

<b>Evening Session 3 [Nov. 14 (Wed), 19:00-20:00], CCI Hall, Chair: Yoshiaki Kato</b>	
	<b>EV3-1: (Remote)</b> <b>Mike Campbell: University of Rochester</b> The status and prospects of ICF and HEDS program at US
	<b>EV3-2:</b> <b>Silvie Jacquemot: Ecole Polytechnique</b> European infrastructures and roadmap towards laser fusion

**Conference Registration, Nov 15(Thu), 8:00~ Registration desk opens at the Entrance of Bunkyo Hall**

<b>Plenary Session 6 [Nov. 15 (Thu), 8:30-10:30], Place Bunkyo Hall, Chair: Liu Chen</b>	
	<b>P21 (8:30-9:00)</b> <b>Michio Yamada : Kyoto University</b> Zonal Flows in Rotating Fluids: phenomenological interest and theoretical problems
	<b>P22 (9:00-9:30)</b> <b>Fulvio Zonca: ENEA&amp; Zhejiang University</b> On the nonlinear dynamics of phase space zonal structure
	<b>P23 (9:30-10:00)</b> <b>B.M. Hegelich: Institute for Basic Science</b> Relativistic Quantum Photonics – fundamental science and applied engineering with ultrahigh intensity lasers
	<b>P24(10:00-10:30)</b> <b>Yasushi Todo: National Institute of Fusion Science</b> Energetic particle physics in fusion plasmas through computer simulation

**Coffee break: 10:30-11:00**

<b>Plenary Session 7 [Nov. 15 (Thu), 11:00-13:00], Place: Bunkyo Hall, Chair: Abhijit Sen</b>	
	<b>P25 (11:00-11:30):</b> <b>Masaharu Hori: Nagoya University</b> Challenge to the systematization of the biological interaction by plasmas
	<b>P26 (11:30-12:00):</b> <b>Wulyu Zhong: Southwestern Institute of Physics (U40 winner)</b> On turbulence and multi-scale interactions in low and high confinement plasmas of the HL-2A tokamak
	<b>P27 (12:00-12:30):</b> <b>Chijie Xiao: Peking University</b> Three-dimensional magnetic reconnection: laboratory experiments and in situ measurements in the magnetosphere
	<b>P28 (12:30-13:00):</b> <b>Yusuke Ebihara: Kyoto University</b> Energy transfer from solar wind to ionosphere: Global MHD simulation results






**Lunch [13:00-14:00], Delivery Place: 2<sup>nd</sup> floor of Bunkyo hall, 410 for reserved, 405 for non-reserved, CCI hall for pre-paid**

***Parallel sessions in the afternoon***





***Conference Dinner 19:30-22:00***

**Conference Registration, Nov 16(Fri), 8:00~ Registration desk opens at the Entrance of Bunkyo Hall**



***Parallel Sessions in the morning***

<b>Plenary Session 8 [Nov. 16 (Fri) , 10:50-11:20], Place: Bunkyo Hall, Chair: <b>Matthew Hole</b></b>	
	<b>P29 (10:50-11:20)</b> <b>Naoyuki Oyama: QST</b> Progress in preparing research plan and construction of JT-60SA
	<b>P30 (11:20-11:50)</b> <b>Daniel Baker: University of Colorado Boulder</b> Wave-Particle Interactions in the Earth's Magnetosphere
	<b>P31(11:50-12:20)</b> <b>Katsumi Ida: National Institute for Fusion Science, NINS</b> Bifurcation phenomena in magnetic confinement
	<b>P32(12:20-12:50)</b> <b>Xuening Bai: Tsinghua University</b> The Physics of Weakly Ionized Protoplanetary Disks
	<b>P33(12:50-13:20)</b> <b>Kwo Ray Chu: National Taiwan University</b> A study of Some Inherent Causes for Non-Uniform Microwave Heating

**Lunch [13:20-14:20], Delivery Place: 2<sup>nd</sup> floor of Bunkyo hall, 410 for reserved, 406 for non-reserved, CCI hall for pre-paid**

<b>Plenary (Summary) [Nov. 16, Friday, 14:20-16:20], Place: Bunkyo Hall, Chair: <b>M. Kikuchi</b></b>	
	<b>P34 (14:20-14:50)</b> <b>Patrick D. Diamond: University of California, San Diego</b> Summary (Cross Disciplinary)
	<b>P35 (14:50-15:20)</b> <b>Guo Yong Fu: Zhejiang University</b> Summary (Fundamental Plasma)
	<b>P36 (15:20-15:50)</b> <b>Yasuaki Kishimoto: Kyoto University</b> Summary (Basic Plasma)
	<b>P37 (15:50-16:20)</b> <b>Jung-Sik Yoon: NFRI</b> Summary (Applied Plasma)

Coffee Break (16:20-16:40)

<b>Plenary (Summary) [Nov. 16, Friday, 16:00-17:30], Place: Bunkyo Hall, Chair:</b>	
	<b>P38 (16:40-17:10)</b> <b>Amita Das: Institute for Plasma Research</b> Summary (Laser Plasma)
	<b>P39 (17:10-17:40)</b> <b>Xiaohua Deng: Nanchang University</b> Summary (Space/Geomag Plasma)
	<b>P40 (17:40-18:10)</b> <b>Ryoji Matsumoto: Chiba University</b> Summary (Solar/Astro Plasma)
	<b>P41 (18:10-18:40)</b> <b>Xuru Duan: Southwestern Institute of Physics</b> Summary (Magnetic Fusion Plasma)
<b>Closing [Nov. 16, Friday, 18:40-19:00], Poster Prize &amp; Closing Place: Bunkyo Hall</b>	

## 2. Sub-disciplinary Parallel Sessions

### 2.1 Cross Disciplinary Program

<b>CD-1 [Nov. 12(Mon)14:00-16:10], TC, Geophysical Fluid Dynamics and Magnetized Plasma, Chair: Won-Ha Ko, Invited 25min, Oral 15min</b>		
CD-11	Yoshi-Yuki Hayashi	Turbulence, waves and momentum transfer in geophysical fluids
CD-12	<del>Guilhem Dif-Pradalier</del>	<del>Global Staircase Organization in Magnetized Plasmas</del>
CD-13	Hiroshi Niino	Tornadoes: Their Structure, Genesis Mechanism and Environment
CD-14	Shin-ichi Takehiro	Thermal convection and induced mean zonal flows in rotating spherical shells
CD-O1	Abha Kanik	Study of plasma potential fluctuations in edge region of ADITYA-U tokamak by reciprocating Laser Heated Emissive Probe [LHEP]
CD-O6	Eiichirou Kawamori	Classical von Neumann Entropy - a Measure of Phase Randomization of Wave Fields in Turbulence -
Pradalier cancel, Kawamori(FP-5->CD-O6)		

<b>CD-2 [Nov. 12(Mon)16:40-18:50], TC, Momentum Transport, Chair: C.S. Liu, Invited 25min, Oral 15min</b>		
CD-15	Won-Ha Ko	Rotation and momentum transport in magnetic confined plasmas
CD-16	Norman Cao	Observation and Quasilinear Modeling of Rotation Reversal Hysteresis in Alcator C-Mod Plasmas
CD-17	Yign Noh	LES of Turbulent Particle-Laden Flows in Nature: from Plankton to Clouds
CD-18	Rameswar Singh	Intrinsic parallel current generation from ETG turbulence in a cylindrical plasma
CD-O2	Yindong Huang	Filament characterization via absorption of terahertz wave
CD-O3	Jiaxiang Wang	Plasma block acceleration by intense laser fields

Evening session 1 @CCI Hall

<b>CD-3 [Nov. 13(Tue) 14:00-16:10], TC, Dynamos and Magnetic Self-Organization, Chair: Peng-Fei Chen, Invited 25min, Oral 15min</b>		
CD-19	Susanna Cappello	Negotiating with magnetic self-organization in confined plasmas
CD-I10	Kengo Deguchi	Self-sustained shear driven dynamos
CD-I11	Min Jiang	Multi-scale interactions between magnetic island and turbulence on HL-2A tokamak
CD-I12	Kumiko Hori	Rotating MHD waves and their implications for planetary dynamos
CD-O4	Takashi Shiroto	Fully conservative scheme for Braams and Karney potential equation
CD-O5	Takahiro Miyoshi	Plasma physical problems in high-energy heavy-ion collisions

<b>CD-4 [Nov. 14(Wed) 14:00-16:10], TC, Boundary Dynamics and Self-Organization, Chair: Susanna Cappello, Invited 25min, Oral 15min</b>		
CD-I13	Peng-Fei Chen	Magnetic self-organization and reconnection in the solar atmosphere
CD-I14	Mei Zhang	Helicity transport from the solar convection zone to interplanetary space
CD-I15	Zhibin Guo	Turbulence Invasion from the Scrape-off-Layer as the Mechanism for H→L transition and Power Hysteresis
CD-I16	Hidenori Aiki	Towards a seamlessly diagnosable expression for the energy flux associated with both equatorial and mid-latitude waves
Discussion I	Cappello, Chen	Topic: Magnetic Self-Organization and Dynamo: Current Status and the Role of Boundary Dynamics?

<b>CD-5 [Nov. 15(Thu) 14:00-16:10], TC, Geophysical Fluid Dynamics and Magnetized Plasma, Chair: Yoshi-Yuki Hayashi, Invited 25min, Oral 15min</b>		
CD-I17	Hiroyuki Arakawa	Wave, flow and vortex: the third structure in drift wave turbulence
CD-I18	Eunok Yim	Global stability of pancake vortices in rotating and stratified fluids
CD-I19	Yusuke Kosuga	How pattern is selected in drift wave turbulence: role of parallel flow shear
CD-I20	Takuma Yamada	Three Dimensional Structure of Streamer in Drift Wave Fluctuations
Discussion II	Diamond, Hayashi	40 years after Hasegawa-Mima, what are promising themes for GFD – MFE interaction?

<b>CD-6 [Nov. 16(Fri) 8:20-10:30], TC, Laser-Plasma, Chair: Patrick Diamond, Invited 25min, Oral 15min</b>		
CD-I21	Chuan Sheng Liu / YanXia Wang	Nonlinear transformation of Stimulated Raman Backscattering from Convective to Absolute Instability and Inflation of Reflectivity in Laser Fusion Experiments
CD-I22	Richard Sydora	Current Sheet Shear Instability and its Role in 3D Magnetic Reconnection
CD-I23	<del>Jiayong Zhong</del>	<del>Laser Driven Low beta Magnetic Reconnection</del>
CD-I24	Takahiro Iwayama	Forced-dissipative turbulence governed by generalized two-dimensional fluid systems
Discussion III	<del>C.S. Liu</del> , P. Diamond	New Directions for Nonlinear Dynamics in Plasma

J. Zhong (CD-I23) cancel. **CD-I21 presented by YX Wang. CS Liu canceled his participation**



## 2.2 Fundamental Plasma Program

<b>F-1 [Nov. 12(Mon) 14:00-16:10], T2, Energetic Particles, NTM, and PIC methods, Chair: GY Fu, Invited 25min, Oral 15min</b>		
F-I1	Zhiyong Qiu	Nonlinear decay and plasma heating by a toroidal Alfvén eigenmode
F-I2	Zhisong Qu	Energetic Geodesic Acoustic Mode (EGAM) as a two-stream instability and EGAM linear mode study in various regimes
F-I3	David Zarzoso	Impact of energetic geodesic acoustic modes on transport in fusion plasmas
F-I4	Ruirui Ma	Theoretic study of the nonlinear energetic particle mode dynamics in tokamaks
F-O1	ZhengXiong Wang (U40 winner)	Control of neo-classical tearing mode in reversed magnetic shear tokamak plasmas
F-O2	Jianyuan Xiao	Charge Conservative Geometric Structure Preserving Particle-in-Cell Scheme for the Relativistic Vlasov-Maxwell System

Coffee break

<b>F-2 [Nov. 12(Mon) 16:40-18:50], T2, Energetic Particles, Multi-scale interaction, and Self Organization, Chair: Hogun Jhang, Invited 25min, Oral 15min</b>		
F-I5	Matthew Hole	Energetic particle driven mode activity: advances in understanding from linear through hard nonlinear regime.
F-I6	Cami Collins	Optimizing future burning plasmas through experiments to understand & control transport of fast ions by Alfvén eigenmodes
F-I7	Lai Wei	Nonlinear interaction between drift-tearing-modes and slab-ITG-modes
F-I8	Pengjun Sun	Experimental Study of Multi-scale Interaction between (Intermediate, Small)-scale Microturbulence and MHD modes in EAST Plasmas
F-I9	Yuichi Yatsuyanagi	Kinetic understanding of self-organization in long-range interacting systems evidenced by numerical simulations on PEZY-SC

<b>F-3 [Nov. 13(Tue) 14:00-16:10], TB, Zonal Flows and other Plasma Flows, Chair: Matthew Hole, Invited 25min, Oral 15min</b>		
F-I10	Taik soo Hahm	Modern Gyrokinetic Description of Residual Zonal Flows
F-I11	Sumin Yi	A gyrokinetic simulation study of parallel flow fluctuation effects on zonal flow generation
F-I12	Kaijun Zhao/ Guo	Sawtooth heat pulses interacting with plasma flows, turbulence and gradients in the tokamak edge plasmas
F-O3	Shaojie Wang	Zonal flows driven by the turbulent energy flux and the turbulent toroidal Reynolds stress in a magnetic fusion torus
F-O4	Gyung Jin Choi	Zonal flow decay in tokamaks with resonant magnetic perturbations: role of broken axisymmetry
F-O5	Debing Zhang	Transport of poloidal momentum due to the electrostatic turbulence based on the gyrokinetic theory

F-I12 (Zhao) will be presented by Z. Guo,

<b>F Poster, CA+CB [Nov. 13(Tue)], CA+CB(CCI) [Poster to be stapled during 14:00-18:50, Authors to be at poster: 16:40-18:50]</b>		
FP-1	Mehdi Abedi-Varaki	Dispersion relation and growth rate for an elliptically polarized electromagnetic wave in cold magnetized relativistic plasma
FP-2	Mitsuyoshi Yagyū	Gyrokinetic Simulations of Microtearing Mode in 2D Slab Model
FP-3	Dominique Escande	Derivation of Landau damping by N-body mechanics
FP-4	Miao Tang	Nanosecond repetitive pulses discharge on turbulent flow in atmospheric air flow

<b>F-4 [Nov. 14(Wed) 16:40-18:50], TC, Magnetic Reconnection and Extended MHD, Chair: Shaojie Wang, Invited 25min, Oral 15min</b>		
F-I13	Yasushi Ono	Direct access to the burning plasma by high-power reconnection heating of merging tokamaks
F-I14	C. Z. Cheng	Electron and Ion Heating/Acceleration in Driving Magnetic Reconnection
F-I15	Shunsuke Usami	Particle Simulation Studies on Effective Ion Heating during Magnetic Reconnection
F-I16	Yohei Kawazura	Relativistic Extended Magnetohydrodynamics: action formalism and physical properties
F-O7	Xiaogang Wang	On Lorentz invariants in relativistic magnetic reconnection
F-O8	Hiroshi Tanabe	Investigation of global ion heating/transport process during merging/reconnection startup of spherical tokamak in TS-3U

<b>F-5 [Nov. 15(Thu) 16:40-18:50], TC, L-H transition, Transport, and Fundamental Theory, Chair: Emily Belli, Invited 25min, Oral 15min</b>		
F-I17	Tatsuya Kobayashi	Experimental investigation of the L-H transition dynamics
F-I18	Hogun Jhang	Magnetic field stochasticization and transport process during edge pedestal collapse simulations
F-I19	Naoki Sato (U30 winner)	Statistical Mechanics of Topologically Constrained Systems: Application to Self-Organizing Diffusion in Plasmas
F-I20	Makoto Sasaki	Selection of flow chirality in drift-mode and D'Angelo-mode fluctuations
F-O9	Dominique Escande	Derivation of Landau damping by N-body mechanics
F-O10	Weixin Guo	Theoretical research on the interplay between impurity and drift wave-zonal flow system in the D-T plasma

<b>F-6 [Nov. 16(Fri) 8:20-10:30], T2, Turbulence, Transport, and PW laser pulses, Chair: Hideo Sugama, Invited 25min, Oral 15min</b>		
F-I21	Shinya Maeyama	Effects of electron-scale turbulence on ion-scale turbulence in Tokamak plasmas
F-I22	Pascale Hennequin	Overview of plasma turbulence structure studies in the ASDEX Upgrade tokamak
F-I23	Emily A. Belli	Critical Role of Sonic Rotation on Ion and Impurity Transport
F-I24	<del>Hanxing Li</del>	<del>Attosecond Gamma-ray generation via nonlinear Compton scattering and single shot carrier envelope phase determination of long-PW laser pulses</del>
F-O11	Mingkun Han	Turbulent Impurity Transport of Electrostatic Drift Waves in Toroidal Plasmas
F-O12	Vladimir Kocharovsky	Spatial spectrum of quasi-magnetostatic turbulence at the growth, saturation and decay phases of Weibel instability in collisionless plasma

Li (F-I24) cancel.

## 2.3 Basic Plasma Program

<b>B1-1 [Nov. 12(Mon) 14:00-16:10], BH, Structure formation in space/ universe plasma and fusion plasma, Chair: A. Sen, Invited 22min</b>		
B-I1	Hirohisa Hara	Plasma Dynamics in the Solar Corona Revealed from Emission-Line Spectroscopy
B-I2	Daniel Grosej	Kinetic turbulence in space and astrophysical plasmas: waves and/or structures?
B-I3	Hiroaki Ohtani	Combination of particle-in-cell simulation with analysis by in-situ and virtual-reality visualization for investigation of plasma physics
B-I4	Surabhi Jaiswal	Dynamical structure formation due to complex plasma flow past an obstacle
B-I5	Naresh S. Saini	Effect of polarization force on nonlinear excitations in dusty plasmas

<b>B2-1 [Nov. 12(Mon) 14:00-16:10], 402, Plasma source and beam for various application, Chair: Kwo Ray Chu, Invited 25min, Oral 15min</b>		
B-I35	Cormac Corr	High-Power Hydrogen Plasmas in the Magnetised Plasma Interaction Experiment (MAGPIE)
B-I36	Haruhisa Nakano	Advanced diagnostics for negative ion plasmas
B-I37	Jinjun Feng	Study of 140GHz and 170GHz gyrotrons for fusion plasma
B-O1	Kazunori Takahashi	Adiabatic expansion of electrons in a magnetic nozzle
B-O2	Pallabi Pathak	Peregrine soliton under enhanced Landau damping in a multicomponent plasma with negative ions
B-O3	Jie Liu	Faraday rotation and polarization-modulated intense laser pulses in a field-ionizing gaseous medium

<b>B1-2 [Nov.12(Mon) 16:40-18:52], BH, Instability, transport and structure formation in fusion and basic plasmas, Chair: Y. Kishimoto, Invited 22min</b>		
B-I6	Masatoshi Yagi	NEXT (Numerical EXperiment Tokamak) project and future prospect of burning plasma simulation
B-I7	Seikichi Matsuoka	Global full-f kinetic simulation of neoclassical transport in stellarator/heliotron plasmas
B-I8	Masaki Nishiura	Experimental approach for understanding self-organized plasma transport in laboratory magnetosphere RT-1
B-I9	Kenichiro Terasaka	Density and flow field structures of partially ionized plasma in laboratories
B-I10	Akio Sanpei	Reconstruction of three-dimensional emissivity structure with integral photography technique
B-I11	Wonho Choe	The creation of electric wind due to the electrohydrodynamic force

<b>B2-2 [Nov.12(Mon)16:40-18:50], 402, Atomic physics and modeling in space and fusion edge-div. plasmas, Chair: C. Dong, Invited 25min, Oral 15min</b>		
B-I38	Nobuyuki Nakamura	Collisional and radiative processes of highly charged iron ions studied with an electron beam ion trap
B-I39	Jun Xiao	Recent Fusion Related Tungsten Spectroscopy Studies at Shanghai EBITs
B-I40	Motoshi Goto	Collisional-radiative mode of neutral helium and its application to plasma diagnosis
B-I41	Shinichiro Kado	Diagnostics to Investigate Thermal Equilibrium/Disequilibrium Features ~ in Fusion Edge And Laboratory Discharge Low-temperature Plasmas ~
B-O4	Debjani Chatterjee	Stimulated scattering instability in a relativistic plasma
B-O5	M. S. Laishram (U30 winner)	Self-organized co-rotating dust vortices in complex plasmas

Gangwar (B-O4) cancel, Chatterjee(BP-4-> BP-4&B-O4)

<b>B1-3 [Nov.13(Tue) 14:00-16:10], 401, Structure formation and control in confined plasmas and lasers, Chair: M. Yagi, Invited 22min</b>		
B-I12	Akihiro Ishizawa	Multi-scale interaction and parity mixture between turbulence and magnetic islands
B-I13	Thanh Tinh Tran	Zonal Flow Formation in Coupled Drift Wave Turbulence and Parallel Flow Fluctuations: A computational Study
B-I14	Lei Chang	Gap eigenmode in linear plasma: theory and simulation
B-I15	Kiyomasa Akaike	Experiments on ion leakage from BX-U linear trap during potential barrier closure
B-I16	Meghraj Sengupta	3D Device Simulations of a toroidally confined pure electron plasma with a new PIC-MCC code - PEC3PIC
B-I17	Mitsutoshi Aramaki	Development of Optical Vortex Doppler Spectroscopy: Azimuthal Doppler Shift and Phase Gradient

<b>B2-3 [Nov.13(Tue) 16:40-18:50], 402, Complex plasma and quantum plasma, Chair: Chengran Du , Invited 25min, oral 15min</b>		
B-I42	Heremba Bailing	Experimental observation of cylindrical dust acoustic soliton in a strongly coupled dusty plasma
B-I43	Pintu Bandyopadhyay	Experiments in flowing dusty plasma
B-I44	Punit Kumar	Two stream instability in magnetized quantum plasma with spin-up and spin-down exchange interaction
B-I45	Sanat Kumar Tiwari	Heating and collective effects in ultracold plasmas
B-O6	Daniel Cocks	Modelling plasmas and liquids: including electron solvation as a non-equilibrium process
B-O7	Nimardeep Kaur	Study of nonlinear structures with relative density effects of spin-up and spin-down electrons in a magnetized quantum plasma

<b>B1-4 [Nov.14(Wed)14:00-16:10], 401, Quantum and complex plasma, and their academic application, Chair: A.A. Mamun , Invited 22min</b>		
B-I18	Roger Hutton	Proposal of highly accurate tests of Breit and QED effects in many-electron systems
B-I19	ChengRan Du	Wave phenomena at the interface of a binary complex plasma: experiments and simulations
B-I20	Mierk Schwabe	Crystallization in three-dimensional complex plasmas
B-I21	Yan Feng (U40 winner)	Transport of magnetized two-dimensional Yukawa liquids
B-I22	Amar Prasad Misra	Surface plasmons in a massless Dirac plasma
B-I23	Thomas Trottenberg	On the importance of determining the momentum transfer from process plasmas to solid surfaces



<b>Basic poster-1[Nov.14(Wed)14:00-18:50], CA+CB@ CCI , [Authors to be at poster during 16:40-18:50]</b>		
BP-1	Oriza Kamboj	Stronger self-focusing for laser interaction with DT fusion target
BP-2	<del>Zahida Ehsan</del>	<del>Weibel instability in relativistic asymmetric electron positron plasma</del>
BP-3	Shivam K. Mishra	Effect of radiation reaction on charged particle dynamics moving in an intense electromagnetic wave
BP-4	Debjani Chatterjee	Modulational instability of kinetic Alfvén waves in a low beta plasma
BP-5	Kuldeep Singh	Overtaking Collision Of Fast Moving Ion Acoustic Kinetic Alfvén Waves
BP-6	<del>Jitendra K. Chawla</del>	<del>Small amplitude ion-acoustic solitons in plasmas with superthermal electrons</del>
BP-7	Prakash C. Singhadiya	Ion-acoustic cnoidal wave and soliton in plasmas with nonthermal electron
BP-8	Kuldeep Singh	Electron acoustic shocks in superthermal magnetoplasma with anisotropy and rotational effects
BP-9	Takayuki Umeda	Non-MHD effects in the nonlinear development of the MHD-scale Rayleigh-Taylor instability
BP-10	Manpreet Singh	Acceleration of charged particles by inertial Alfvén waves in the coronal holes
BP-11	Atsushi Fukuyama	Two-dimensional modeling of plasma production and heating by electromagnetic waves including collision-less damping
BP-12	Naohiro Kasuya	Comparison of reduced sets of a gyro-fluid model for ion-temperature-gradient instabilities in cylindrical plasmas
BP-13	Meenakshree Sharma	Study of ion acoustic wave in curvature of magnetic field
BP-14	Punit Kumar	Surface Plasma Wave in Semiconductor Quantum Plasma with Spin-up and Spin-down Exchange Interaction
BP-15	<del>Jyotirmoy Pramanik</del>	<del>Characterization of Carbon Dust Formation and Growth in a Co-generated Dusty Plasma</del>
BP-16	Papihra Sethi	Dust Acoustic Dromions In a Strongly Coupled Dusty Plasma
BP-17	<del>Sankirtan Sardar</del>	<del>Existence and stability of alternative dust ion-acoustic solitary waves in a dusty plasma consisting of nonthermal electrons having vortex like velocity distribution</del>
BP-18	Tonuj Deka	Subharmonic generation in dust acoustic wave by ion streaming modulation in nano dusty plasma
BP-19	Yoshiko Bailung	Experimental study of dusty plasma flow past an obstacle

Chatterjee(BP-4->B-O4, BP-4 has new presentation by Chatterjee), Ehsan(BP-2) cancel, Sardar (BP-17) cancel. Pramanik(BP-15) cancel.

Chawla(BP-6) cancel

<b>B2-4 [Nov.14(Wed)16:40-18:50], 402, Large scale fusion plasma simulation and methodology, Chair: Y. Todo, Invited 25min, Oral 15min</b>		
B-I46	Shinichiro Toda	Modeling of gyrokinetic turbulent transport in helical plasmas
B-I47	Haruki Seto	Impact of nonlinear toroidally axisymmetric flow and field on ELM crash
B-I48	Yuuichi Asahi	Benchmarking of flux-driven full-F gyrokinetic simulations
B-I49	Ding Li	The effects of high magnetic field on plasma kinetic equations and transport
B-O8	V.St. Mykhaylenko	Nonmodal evolution of the current-driven instabilities of plasmas with shearing current
B-O9	Zongliang Dai	Gyrokinetic simulation of ITG turbulence with toroidal geometry including the magnetic axis by using field aligned coordinates

<b>B1-5 [Nov.15(Thu)14:00-16:10], 401, Discharge plasma, surface plasma and application, Chair: Yu-Kang Pu , Invited 22min</b>		
B-I24	Masafumi Fukunari	Experimental investigation on millimeter-wave discharge induced in gas
B-I25	Anbang Sun	Understanding the start of pulsed discharges in atmospheric air with 3D particle simulations
B-I26	Bornali Sarma	Characteristic behavior of plasma fluctuations inside plasma bubble in presence of magnetic field due to the formation of potential well
B-I27	Sanghoo Park	Plasma-functionalized solution and its applications
B-I28	Hong Yu Chu	Diffusion-limited aggregation-like patterns produced by atmospheric plasma jet
B-I29	Keh-Chyang Leou	Development of Microwave Based Plasma Density Sensors for Process Monitoring and Feedback Control of Plasma Processing Tools

<b>Basic poster-2[Nov.15(Thu)14:00-18:50], CA+CB @CCI, Author to be at poster during 16:40-18:50</b>		
BP-20	K. Rabadanov	Limitations of the local approximation for EDF in modeling of gas discharge plasma
BP-21	Dmitrii Bogdanov	Influence of dust particles on the formation of spatial distributions of particles and fluxes in positive column of dc glow discharge
BP-22	Yanhui Wang	Numerical study on the stability of helium atmospheric pressure plasma jets propagating into humid air
BP-23	Fei Gao	PIC/MC simulation of breakdown dynamic near high power microwave out-put window inside
BP-24	Shiro Maenaka	Development of a 3D numerical simulation model for horizontal xenon short arc lamp
BP-25	Yuki Iwamoto	Characterization of a Large Diameter Cascade Arc Discharge Plasma
BP-26	Chien-Kuan Chen	Dynamics of lightning-like discharge at atmospheric pressure
BP-27	Hoa Truong	Electric and Dielectric Properties of Dielectric Barrier Discharge (DBD) Plasmas in Water by using Silicon Diodes for Alternating Current (SIDAC)
BP-28	Rajesh Srivastava	Electron Impact Excitation of Xe+ Ions and Plasma Modeling
BP-29	Takayuki Okui	Multiple ionization on Cl-K $\alpha$ Spectra from Hot Dense Plasma Produced by Ion Beam Irradiation
BP-30	Samuel Cousens	Atomic Hydrogen Dynamics in a High Power Helicon Plasma
BP-31	Masaharu Fukuyama	Advanced Adaptive-array Technique for ECE Diagnostics in a Software Defined Radio System
BP-32	Takahiro Shugyo	Development of a high-density Ar plasma source for plasma window application
BP-33	Takeru Furukawa	High-Dense, Helicon Plasma Acceleration Using Rotating Magnetic Field
BP-34	Hiroki Nagai	Plume Potential Analysis for Ion Thruster in Ground Test Chamber by a Three-dimensional Electrostatic Full Particle Code
BP-35	Kazuma Ueno	Development of a small MPD arcjet for Future High-Power Space Propulsion
BP-36	Takeharu Sugawara	Vector-resolved measurement of a local plasma momentum in a helicon plasma thruster
BP-37	Prateek Varshney	Multifocal Terahertz Radiation Generation by Beating of Two Cosh-Gaussian Laser Beams with Graphite Nanoparticles
BP-38	<del>Xianxiu Mei</del>	<del>Effects of High Intensity Pulsed Ion Beam Irradiation on the Structural Thermal Stability of Fe-based and Ni-based Metallic Glasses</del>
BP-39	Ryoma Hara	Emission time width measurement of single bubble sonoluminescence using Ar degassed phosphoric acid
BP-40	<del>Renu Kumari</del>	<del>Study the effect of rf power on the plasma parameters for different composition of CH4/H2 plasma</del>
BP-41	Neha Pathak	Nonlinear Effects of 3D Whistler Waves in magnetized Plasma
BP-42	Rupinder Kaur	Study of Nonlinear Excitations in a Degenerate Ion Beam Plasma
BP-43	Yu Liu	Scattering of Dust Particles near the Moon's Surface by a Plane Wave
BP-44	Yu Liu	The extinction properties in gain plasmonic nanoparticles
BP-45	Junxia Xie	Propagation Matrix Method Study on effect of container on terahertz wave propagation of dusty plasma
BP-46	Joël Rosato	Spectroscopic models for the diagnostic of laboratory and astrophysical plasmas
BP-47	Jung Yeol Lee	The external control on the energy distribution of charged species in capacitively coupled plasma

Renu Kumari(BP-40) cancel,

<b>B2-5 [Nov.15(Thu)16:40-18:50], 402, Atomic physics and modeling in space and fusion edge-div. plasmas, Chair: S. Nishiyama, Invited 25min, Oral 15min</b>		
B-I50	Hayato Ohashi	Characteristics of water-window soft X-ray emission from bismuth plasmas
B-I51	Shinichi Namba	Anomalous enhancement of water window X-rays emitted from laser produced Au plasma under low-pressure nitrogen atmosphere
B-I52	Xi-Min Zhu	Atomic and ionic processes in low-temperature Ar, Kr, and Xe plasmas: cross section data and collisional-radiative model
B-I53	Toru Kawamura	Lasing potential of extreme-ultraviolet (EUV) light of nitrogen with a recombining plasma scheme
B-O10	<del>Soubhik Sarkar</del>	<del>Nature of collective mechanism in cluster nanoplasma</del>
B-O11	Yuki Kunishima	Development of Nitrogen Vibrational Excitation Plasma Source with Repetitive Nanosecond Pulses

Sarkar (B-O10) cancel

<b>B1-6 [Nov.16(Fri)8:20-10:30], BH, Structure formation and dynamics of plasmas, X-ray astrophysics, Chair:A. Aramaki, Invited 22min</b>		
B-I30	Yuichiro Ezoe	High Resolution X-ray Spectroscopy of Astrophysical Plasmas with X-ray Microcalorimeters
B-I31	Fuminori Tsuchiya	Remote sensing of planetary and satellite atmospheres and aurorae through ultraviolet spectroscopy
B-I32	GuiYun Liang	X-ray and extreme-ultraviolet spectroscopy in astrophysical and laboratory plasmas
B-I33	Alexandre Escarguel	Study of instabilities in cross-field plasma configurations
B-I34	Daisuke Kuwahara	Study of Helicon Plasma Thruster using Internal Gas Feeding Method
B-O12	Prabhakar Srivastav	Temperature Fluctuation Measurement in Electron Temperature Gradient (ETG) turbulent plasma of Large Volume Plasma Device (LVPD)

<b>B2-6 [Nov.16 (Fri) 8:20-10:30], 402, New approach diagnostics, Chair: S.H. Chen, Invited 25min, Oral 15 min</b>		
B-I54	Shusuke Nishiyama	Applications of Saturation Spectroscopy to Plasma Diagnostics
<del>B-I55</del>	<del>Yongtao Zhao</del>	<del>Stopping of laser accelerated ion beam in a foam plasma</del>
B-I56	Tsun-Hsu Chang	High-alpha and low-spread electron beam for terahertz gyrotrons
B-O13	Tobias Dornheim (U30 winner)	Ab Initio Quantum Monte Carlo Simulation of Warm Dense Electrons
B-O14	Hao-Wei Hu	Correlating multi-scale dynamics in 2D cold Yukawa liquids
B-O15	Toshiki Kato	Control of diameters of Li+ and e- plasmas for testing two-fluid plasma state

Yongtao Zhao (B-I55) cancel.

## 2.4 Applied Plasma Program

<b>A-1 [Nov. 12(Mon)14:00-16:10], @401, Chair: K. Urashima</b>		
A-I1	Rajdeep S. Rawat	Low temperature carbon-plasma based facile approach of carbon doping and encapsulation for energy storage applications
A-I2	Kunihiro Kamataki	Impact of Amplitude Modulation of RF Discharge Voltage on the Spatial Profile of Nanoparticle Characteristics in Reactive Plasma
A-I3	Naho Itagaki	Sputter epitaxy of high quality (ZnO) <sub>x</sub> (InN) <sub>1-x</sub> : a new semiconducting material for excitonic devices
A-I4	Kentaro Tomita	Two-dimensional profiles of electron density and temperature in laser-produced Sn plasmas for extreme-ultraviolet (EUV) light sources
A-O1	Masaki Ishiba	Development of compact retarding field energy analyzer for measuring ion energy distribution in planar magnetron discharge
A-O2	Haruhisa Koguchi	BN deposition plasma device

Fröhlich cancel, Rawat(I8->I1), Kamataki(A-O2->A-I2), Itagaki(A-I2->I3), Koguchi(AP-27->A-O2)

<b>A-2 [Nov.12(Mon)16:40-18:50], 401, Chair: K. Tomita, Invited 25min, Oral 15min</b>		
A-15	Kuniko Urashima	Critical review of Plasma Technologies for Environmental Problems
A-16	Weizong Wang	Plasma based CO <sub>2</sub> conversion into value added products: better insights from computer modelling
A-17	Lanbo Di	Atmospheric-pressure cold plasma for synthesizing supported metal catalysts with the assistance of ethanol
A-18	Akimitsu Hatta	Micro-arc discharge plasma in high-pressurized sea water
A-O3	Mai Kai Suan Tlal	Development of Dielectric Barrier Discharge Plasma Source for Ozone Generation (water treatment)
A-O4	Jun-Seok Oh	Long-term bactericidal effect and reactive oxygen and nitrogen species (RONS) chemistry of radical-activated water

Hatta(A-O3->A-I8), Tlal(A-O4->A-O3), Oh(AP-62->A-O4)

<b>Applied Poster-1 [Nov.13(Tue), 14:00-18:50], CA+CB@CCI [14:00-16:10: Authors to be at poster]</b>		
AP-1	Hiroharu Kawasaki	Method for preventing hydrogen embrittlement using process plasma
AP-2	Kentaro Morimoto	Investigation of Disinfection Effect for Particulate Food by Dielectric Barrier Discharge using Rotational Electrode
AP-3	Junhwi Bak	Investigation of Electron Cross-field Transport in Hall Thrusters with Inhomogeneity of Plasma Density and Potential in Azimuth
AP-4	Jiahao Lyu	Sputter epitaxy of single crystalline ZnO on 18%-lattice-mismatched sapphire using multi buffer layers fabricated via nitrogen mediated crystallization
AP-5	Masanori Shinohara	Hydrophilic hydrocarbon film deposited with one-step process
AP-6	Lunjiang Chen	Experimental study on the interaction mechanism between particles and plasma in plasma spheroidization
AP-7	Wan Dong	ALE of SiO <sub>2</sub> by alternating CF <sub>4</sub> plasma with energetic Ar <sup>+</sup> plasma beams
AP-8	Yoshiki Matsui	Measurement of oxidization power of plasma produced reactive oxygen radicals with chemical probes
AP-9	Hiroshi Akatsuka	Heat Transfer of Submerged Ar Arc Plasma to Water for the Decommissioning of Degraded Nuclear Power Plant
AP-10	Hitoshi Nozaki	Fabrication of glucose fuel cell using carbon nanowalls
AP-11	Taishin Shimada	Investigation of Ashing Mechanism for Various Polymer Films using Microwave Excited Plasma under Water Vapor Atmosphere
AP-12	Taito Iraha	Development of UV/Ozone Sterilization Method
AP-14	Patrick Hermanns	Influence of the electron extraction voltage on plasma parameters in a low pressure microwave microplasma as an electron source for a miniaturized mass spectrometer
AP-15	Kazuya Sugiyama	Development of Large-Area, Wide Gap Dielectric Barrier Discharges with Pre-Ionization Electrodes for Uniform Material Processing
AP-16	Wataru Wakaki	ZnO nanoparticles generated by RF sputtering with laser-assisted
AP-17	<del>Yoshinobu Matsuda</del>	<del>High speed and uniform deposition of Ga-doped ZnO film by narrow gap RF magnetron discharge and utilization of buffer layer</del>
AP-19	Ren Zhou	Spatial-Structure of Density Fluctuation of Nanoparticles in Amplitude Modulated Capacitively Coupled Plasma
AP-20	Yamato Adachi	Ion beam current density measurements of a focused high-current-density low-energy ion beam by using electrostatic probes
AP-21	Yuya Oshio	Thrust Characteristics of Electrodeless Plasma Thruster using RF Discharge with Non-Uniform Magnetic Field
AP-22	Masahiro Sugiyama	Surface Modification of Two-Dimensional Layered Molybdenum Disulfide Thin Film Using MW Hydrogen Plasma
AP-23	Kazuma Tanaka	Suppression of HOS molecules incorporation in a-Si:H films fabricated by plasma CVD
AP-24	Liu Shi	Spatial distribution of SiH <sub>2</sub> /SiH bond density ratio in a-Si:H solar cells fabricated by plasma CVD
AP-25	Hiroshi Akamatsu	Plasma-assisted formation of oxide thin film at atmospheric pressure and unheated process
AP-26	SungHwa Hwang	Effects of Gas Pressure on Size of Carbon Nanoparticles Prepared by Methane Plasma Process
AP-28	Seishu Shimamoto	The electron orbit which consider the Planck constant in the atomic shell
AP-29	Masayuki Takahashi	Propellant Species Dependence of Plasma and Shock Wave Structures in a Microwave Rocket
AP-30	Yudai Yamakawa	Numerical Study of an Electrodeless Plasma Thruster Using a m = 0 Coil
AP-31	Kotaro Shimizu	High-Rate Synthesis of Si/C Nanoparticles using Pulse-Modulated Induction Thermal Plasmas with Intermittent Feeding of Feedstock
AP-32	Masaharu Shiratani	ESR study of plasma irradiated seeds
AP-33	Yasuaki Aiba	Atomization and Number Density Measurement of Strontium in Arc-jet
AP-34	Friederike Kogelheide	Characterisation of a colume dielectric barrier discharge in N <sub>2</sub> /O <sub>2</sub> mixture using absolutely calibrated optical emission spectroscopy
AP-35	<del>Hom B. Baniya</del>	<del>Generation and characterization of atmospheric pressure plasma jet and its applications</del>
AP-36	Motoki Yamada	Continuous synthesis of metal nanoparticles by discharge plasma in gas/liquid slug flow
AP-37	Ying-Ying Zhang	Fluid simulation on plasma characteristics of RF capacitively coupled plasma sustained in Ar/SiH <sub>4</sub> /N <sub>2</sub> O
AP-38	Yong-Xin Liu	High-energy electron dynamics at igniting phase in a pulsed capacitively coupled argon plasma
AP-39	Yuan-Hong Song	Spatiotemporal analysis of electric field reversal in capacitively coupled SiH <sub>4</sub> /Ar RF discharge
AP-40	Taichi Saito	Enhanced plasma density downstream of an rf plasma source by enlarging an open source exit.
AP-41	Takeshi Kitajima	Promotion of radical nitriding reaction of silicon using gold nanoparticles
AP-42	Goju Suga	Generation processes of Ca atoms via interaction between Ca <sup>2+</sup> containing droplets and laser-produced plasma in atomsphere
AP-43	Desheng Zhou	Experimental investigation of airflow state to corona discharge
AP-45	Xiuling Zhang	Atmospheric-pressure cold plasma assisted ruthenium catalyst for carbon dioxide hydrogenation

Groeger(AP-13->A-O6), Koguchi(AP-27->A-O2), Sakakita(AP-18->A-O18), Matsuda(AP-17) cancel, Baniya(AP-35) cancel

<b>A-3 [Nov13(Tue), 16:40-18:50], Room 401, Topics: Atmospheric plasmas and their applications, Chair: W. Wang</b>		
A-I9	Mukesh Ranjan	Anode fireball in magnetically constricted plasma for making superhydrophobic nanodot surfaces
A-I10	Giichiro Uchida	Control of ROS and RNS productions in liquid by using a nonthermal high-frequency plasma jet
A-I11	Kantamard Lamasai	The sterilization and quality improvement of rice flour by dielectric barrier discharge (DBD) plasma
A-I12	Masanori Shinohara	Hydrocarbon plasma induced surface reaction, considered with multiple-internal-reflection infrared absorption spectroscopy
A-O5	Keigo Takeda	Spatial diagnostics of reactive species in AC-excited atmospheric pressure Ar plasma jet generated in open air
A-O6	Sven Groeger	Characterization of a plasma enhanced ignition system for modern combustion engines by optical methods

X. Zhong (A-I9) cancel, Ranjan(I10->I9), Uchida(I11->I10), Lamasai(O6->I11), Groeger(AP-13->O6),

<b>A-4 [Nov14(Wed), 14:00-16:10], Room 402, Topics: Plasma Process, Chair: A. Hatta, Oral 15min</b>		
A-O7	Longwei Chen	An extraction of microwave ECR plasma cathode based e-beam under ultralow pressure
A-O8	Tridip K. Borthakur	Studies of High Speed Plasma Stream Generated from a Pulsed Plasma Accelerator
A-O9	Deyan Liu	Characteristic of oxygen plasmas for developing new plasma processing using negative oxygen ions
A-O10	Yusuke Kikuchi	Surface modifications of materials using high-repetition nanosecond pulsed glow discharges under sub-atmospheric pressure
A-O11	Manabu Tanaka	High-Speed Measurement of Electrode Temperature of Diode-Rectified Multiphase AC Arc
A-O12	Veda P. Gajula	Low-temperature atmospheric pressure plasma source development and characterization for biomedical applications
A-O13	Seia Ogasawara	Laboratory Experiment of Traveling Magnetic Field Acceleration for Electrodeless RF Plasma Thruster
A-O14	Arup J Choudhury	Chitosan coated silk fibroin surface modified by atmospheric dielectric-barrier discharge (DBD) plasma: fabrication, mechanical properties, in vitro drug release behaviour and biocompatibility assessment

<b>Applied Poster-2 [Nov14(Wed), 14:00-18:50], CA+CB@CCI, [Authors to be at poster during 16:40-18:50]</b>		
AP-46	Teena Jangid	Plasma surface modification of ZnSnN <sub>2</sub> thin-films for opto-electronic applications
AP-47	Ping Duan	Numerical study on the Influences of Magnetic Field on the Discharge Characteristics in Hall Thruster Channel
AP-48	Long Chen	Numerical Study on the Effect of Magnetic Shielding Configuration on Hall Thruster Discharge Channel
AP-49	Chung-Yu Kuo	A Flat-Head Plasma Absorption Probe for Measurement of Plasma Density
AP-50	Wei-Kang Tseng	Simulation Study of Capacitively Coupled Radio Frequency Plasma Discharges with Hollow Cathode Structure on Grounded Electrode
AP-51	Yong Cao	Numerical Simulation on the influence of decelerator grid on the ion thruster Optics performance
AP-52	Zhongling Dai	Effect of ion bombardment time on the profile of atomic layer etching
AP-53	Yasuyuki Kawaguchi	Development of the simultaneous measurement system of temperature and velocity for plasma spray droplets
AP-54	Miao Tian	NO <sub>2</sub> - and NO <sub>3</sub> - enhance cold atmospheric plasma induced cancer cell death by generation of ONOO-
AP-55	Yusuke Takenaka	Direct JxB Drive of the molten Cathode Spot and its effect on the surface temperature in the Plasma Arc Cutting Torch
AP-56	Shali Yang	Magnetical asymmetry effect in geometrically and electrically symmetric capacitively coupled plasmas
AP-57	Narong Mungkung	Development of Air Purification in Swine House Using Plasma System
AP-58	Kazuki Watanabe	Decomposition of methylene blue by laminar gas-fed atmospheric pressure plasma jet using double coaxial glass tube
AP-59	Masashi Terada	Two-stage acceleration of intense pulsed heavy ion beam by bipolar pulse accelerator
AP-60	Rodolphe Mauchaff��	High Speed Roll-to-Roll Deposition of TiO <sub>2</sub> Thin Films by a Hybrid Plasma/CVD Method at Atmospheric Pressure and Low Temperature
AP-61	Hiroaki Ito	Generation of high power microwave from multistage axial virtual cathode oscillator for efficiency enhancement
AP-62	Jeong-Hwan Oh	Synthesis of Cobalt Boride Nano Material in Triple DC Thermal Plasma Jet System
AP-63	Tanes Tanitteerapan	The Porous Ti/TiO <sub>2</sub> nanolayer affecting by a Combined SolGel Combustion Method / RF-Sputtering for Dye-sensitized solar cells

<b>A-5 [Nov14(Wed), 14:40-18:50], Room 401, Chair: M. Tanaka, Invited 25min, Oral 15min</b>		
A-I13	Eric Johnson	Tailored Voltage Waveform Plasmas for Control of Surface Processing
A-I14	Yu Ru Zhang	Plasma characteristics in an electrically asymmetric capacitive discharge sustained by multiple harmonics: operating in the very high frequency regime
A-I15	T. Moriya	Ion energy control in capacitively coupled discharges for PEALD processes
A-I16	Masaharu Shiratani	Micron-scale plasma fluctuation detected using paired fine particles
A-O15	Suresh C. Sharma	Effect of doping on the Growth and Electronic Properties of Graphene-Carbon Nanotube Hybrid
A-O16	Tadashi Nonaka	Nanoparticles Synthesis of Lithium Oxide Composite with Refractory Metal for Lithium-Ion Battery Electrodes

<b>A-6 [Nov15(Thu), 14:00-16:10], Room 402, Chair: K. Bazaka, Oral 15min</b>		
A-O17	Keisuke Takashima	Agricultural Application of Gas-liquid Interface Reaction of Dinitrogen Pentoxide Generated by Atmospheric Air Plasma
A-O18	Hajime Sakakita	Characteristic Measurements of Low Energy Atmospheric Pressure Plasma toward Protein Aggregation
A-O19	Shota Sasaki	Continuous release of short-lived species induced by plasma irradiation and its application in drug delivery
A-O20	Yutaka Kume	Molecular Diffusion Rates of Supported Lipid Bilayer in Phosphate Buffered Saline Irradiated with Oxygen Radicals
A-O21	Naoyuki Iwata	Generation mechanism of bactericidal efficacy in the radical-activated water
A-O22	Norrawit Tonmitr	Development of LF-Microwave Hybrid Plasma Source for Surface Sterilization
A-O23	Nasruddin	Evaluation the effectiveness of combinative treatment of atmospheric plasma jet and natural product on wound healing
A-O24	Takashi Morioka	Pulsed oxygen negative ion plasmas produced by RF discharge

Hajizadeh (A-O18) cancel. Sakakita(AP-18->A-O18)

<b>Applied Poster-3 [Nov15(Thu), 14:00-18:50], CA+CB@CCI [Authors to be at poster during 14:00-16:10]</b>		
AP-64	Tridip Kumar Borthakur	Studies of High Speed Plasma Stream Generated from a Pulsed Plasma Accelerator

<b>A-7 [Nov15(Thu), 16:40-18:50], Room 401, Chair: K. Takashima, Invited 25min, Oral 15min</b>		
A-I17	Eun Ha Choi	Plasma Medicine and its Mechanism for Cancer Therapy
A-I18	Dehui Xu	Regulation of reactive species in gas plasma and the application in tumor therapy
A-I19	Heping Li	Non-equilibrium Characteristics of Atmospheric-Pressure Thermal Plasmas
A-I20	Kateryna Bazaka	Reactive plasmas to control activity of small molecules and microorganisms
A-O25	Ryosuke Honda	Effects of in-liquid plasma on enhancement of cell membrane permeability
A-O26	Pipath Poramapijitwat	The investigation of Dielectric Barriers Discharge Plasma Jet (DBDJ) for bactericidal in chronic wound

<b>A-8 [Nov16(Fri), 8:20-10:30], Room 401, Plasma Source, Chair: E. Johnson, Invited 25min, Oral 15min</b>		
A-I21	Qiuyue Nie	Experimental studies on electromagnetic radiation intensification in GHz band by sub-wavelength plasma structures
A-I22	Hitoshi Tamura	Study on uniform plasma generation mechanism of Electron Cyclotron Resonance etching reactor
A-I23	Hiroataka Toyoda	Influence of magnetic field on high-energy negative ion behavior in magnetron plasma with oxide targets
A-I24	Shuyan Xu	Miniature Hall Effect Thruster and Gradually Expanding Rotamak Thruster for Space Propulsion
A-O27	Takayoshi Ishiyama	Development of a double stage electrostatic accelerated RF plasma thruster
A-O28	Yuki Murayama	Laboratory Experiment of Magnetoplasma Sail and Future Mission

## 2.5 Laser Plasma Program

<b>L-1 [Nov12(Mon), 14:00-16:10], Room CB+CC, High-energy density physics , Chair: Peter Norreys, Invited 25min, Oral 15min</b>		
L-11	Robert Bingham	Recent developments in laser plasma interactions
L-12	Otto Landen	Indirect-Drive Fusion with the NIF Laser
L-13	Yoshitaka Mori	Compact Fast Ignition experiments using Joule-class drive pulses under counterbeam configuration
L-14	Shohei Sakata	Efficient creation of ultra-high-energy-density states by magnetized fast isochoric laser heating
L-O1	Yuqiu Gu	Experimental Evidence of Kinetic Effects in Indirect-Drive Inertial Confinement Fusion Hohlraums
L-O2	Minqing He	Neutrons obtained by ultra-intense laser interacting with spherical target

<b>L-2 [Nov12(Mon), 16:40-18:50], Room CB+CC, Particle acceleration (1), Chair: Bjoern Hegelich, Invited 25min, Oral 15min</b>		
L-15	Mamiko Nishiuchi	Ion acceleration experiments with high contrast high intensity laser system "J-KAREN-P" -- Extremely strong quasi-static electric field---
L-16	Woosuk Bang	Rapid and uniform heating of matter with a laser-driven ion beam
L-17	Bin Qiao	Stable laser ion radiation pressure acceleration
L-18	B. Ramakrishna	Laser driven proton acceleration from layered targets
L-O3	Masayasu Hata	Theory and simulation of the acceleration of high charge-state heavy ion by an ultrahigh intense laser
L-O4	Tatiana Pikuz	Ionization and Radiation properties of plasma created by ultra-intense femtosecond laser pulses interaction with medium- and high-Z foils

Mandal (L-O4) cancel, Pikuz(LP-3->L-O4)

<b>LPL-1 [Nov13(Tue), 14:00-16:120], Room CCI Hall, Laboratory Astrophysics, Chair: Yasuhiro Kuramitsu, Semi-plenary 22min</b>		
LPL-1	Xueshang Feng (SG)	Data driven simulation of solar wind
LPL-2	Takayoshi Sano (L)	Interfacial magneto-hydrodynamic instabilities in astrophysical and laser plasmas
LPL-3	Yosuke Matsumoto (SA)	Magnetic Field Saturation of the Ion Weibel Instability in Interpenetrating Relativistic Plasmas
LPL-4	Seiji Zenitani (SG)	Electron dynamics surrounding the X line in asymmetric magnetic reconnection
LPL-5	Frederico Fiuza (L)	Advances in astrophysical relevant particle acceleration using simulations and laser plasma experiments
LPL-6	Katsuji Koyama(SA)	X-ray diagnosis on Space Plasma, a Laboratory of Extreme Condition

Ip (LPL-3) canceled. Y. Matsumoto (SA-O1-> LPL-3)

<b>Laser poster-1, CA+CB [Nov13(Tue), 14:00-18:50, Authors to be at poster at 16:40-18:50]</b>		
LP-1	Duan Xie	The Application of Polarization Grating (PG) in High-Order Harmonic Generation from Intense Laser-Solid Interaction
LP-2	Hazel Lowe	Spatial and spectral x-ray characterization of the Target Normal Sheath Acceleration regime
LP-4	Naoki Higashi	Heating a solid isochorically over keV temperature high energy density state by a multi-picosecond intense laser light
LP-5	Daniil Golovin	Indications on the ion acceleration with a magnetic reconnection induced by dual ps high-intensity laser pulse incidence on a foam target
LP-6	Shabbir A. Khan	Collective excitations in a pair plasma with orbital angular momentum
LP-7	Deepa Verma	Stability of flat-top soliton in transverse direction
LP-8	Ye Tian	Table-top Laser-driven microwire for Intense Terahertz radiation
LP-9	Rong Qi	Laser driven micro-wire for electron diffraction
LP-10	Chia-Ying Hsieh	Progress on the Simulation Study of Sub-Terawatt Laser Wakefield Acceleration Driven by Ytterbium-Doped Lasers

<b>L-3 [Nov13(Tue), 16:40-18:50], Room T2, Basic laser science , Chair: Takayoshi Sano, Invited 25min, Oral 15min</b>		
L-19	Alexis Casner	Turbulent Hydrodynamics Experiments in High Energy Density settings
L-110	Alessandra Ravasio	Warm dense matter studies relevant for planetary science
L-111	Wei-Min Wang (U40 winner)	Theoretical and experimental studies on THz radiation via two-color laser scheme
L-112	Atur Kumar	In-Situ Ion Heating With Pulsed CO <sub>2</sub> Lasers
L-O5	Ayushi Vashistha	Novel technique of direct laser energy absorption by ions
L-O6	Zhelin Zhang (U30 winner)	Controllable broadband terahertz radiations from laser driven air plasmas

<b>LPL-2 [Nov14(Wed), 14:00-16:120], Room CCI Hall, User Session, Chair: Youichi Sakawa, Semi-plenary 22min</b>		
LPL-7	Peter Norreys	Overview of some key achievements on the route to IFE
LPL-8	Toshinori Yabuuchi	Current status of experimental platform for laser-based plasma physics at the XFEL facility SACLA
LPL-9	Yutong Li	Novel large-energy terahertz radiation sources from intense laser-foil interactions
LPL-10	Michel Koenig	Collaboration experiments at LULI
LPL-11	Mitsuo Nakai	Joint usage/joint research program of GEKKO-XII/LFEX at ILE, Osaka University
LPL-12	Bruce Remington	Exploring the universe through Discovery Science on NIF: an overview and highlights

<b>Laser poster-2, CA+CB</b>		<b>[Nov14(Wed), 14:00-18:50, Authors to be at poster at 16:40-18:50]</b>
LP-11	Updesh Verma	Laser pulse amplification by Stimulated Brillouin Scattering in pi pulse regime
LP-12	Yusuke Nakamura	Modeling of Millimeter-Wave Discharge at Under-Critical Intensity Considering Excitation on Ionization Front
LP-13	Ekta Agrawal	Phase-matched third harmonic generation via interaction of bichromatic laser beams with plasma
LP-14	Kentaro Abe	Surface Plasmon Resonance Of High Power Laser Field
LP-15	Sudhir Kulkarni	SPECT3D, Imaging and Spectral Analysis Package
LP-16	Alexandr Frolov	Focusing of XUV laser beam with short focal length mirror
LP-17	Xiaofeng Li	A nano-structured device toward high contrast of intense short-pulse laser
LP-18	Kazuki Matsuo	Growth of ablative Rayleigh-Taylor instability in a strong external magnetic field
LP-19	Shogo Isayama	Ion acceleration using self-focusing laser pulse in near critical density plasma
LP-20	Hanghang Ma	A nonlinear model for the formation of plasma density grating



<b>L-4 [Nov14(Wed), 16:40-18:50], Room T2, Particle acceleration (2), Chair: Félicie Albert</b>		
L-I13	Lorenzo Romagnani	Dynamics of the Electromagnetic Fields induced by Fast Electrons propagation in Near Solid-Density Media
L-I14	Liming Chen	Gamma ray emission from wakefield accelerated electrons wiggling in laser field
L-I15	Tom Blackburn	Radiation reaction in laser-electron beam interactions
L-I16	Yuji Fukuda	Generation of high-repetitive, multi-MeV, pure proton beams via Coulomb explosion of micron-size hydrogen cluster target
L-O7	James Koga	Focusing and Up-shift of Ultra-high Intensity Lasers Reflected by Relativistic Flying Mirrors
L-O8	Angina Mondal	A Particle - In - Cell simulation of finite electron beam plasma system

<b>LPL-3 [Nov15(Thu), 14:00-16:120], Room CCI Hall, HEDP, Chair: Bruce Remington, Semi-plenary 22min</b>		
LPL-13	Sinsuke Fujioka	Fast Ignition Realization EXperiment project in Japan
LPL-14	Dieter Hoffman	Accelerator Driven High Energy Physics -Perspectives at HIAF (China) and FAIR (Germany)-
LPL-15	Il Woo Choi	Laser-driven ion acceleration from the interaction of ultrashort ultrahigh-contrast multi-petawatt laser and thin solid target
LPL-16	Félicie Albert	Betatron x-ray radiation in the self-modulated laser wakefield acceleration regime: prospects for a novel probe at large scale laser facilities
LPL-17	Farhat Beg	Acceleration of energetic ion beams using ultra-thin targets interacting with the high intensity short pulse laser
LPL-18	Derek Schaeffer	Experimental studies of high Mach number collisionless shocks in magnetized plasmas

<b>Laser poster-3, CA+CB</b>		<b>[Nov15(Thu), 14:00-18:50, Authors to be at poster during 16:40-18:50 ]</b>
LP-21	Andrey Kuratov	Laser-plasma mechanisms of generation THz radiation
LP-22	Rakesh K.Yembadi	A source to deliver mesoscopic particles for laser plasma studies
LP-23	Masaya Yoshimoto	Double structure of ions in 2D particle in cell laser plasma simulation
LP-24	Noboru Kakunaka	Water window soft X-ray emission from Au plasmas generated with a picosecond laser pulse
LP-25	Christian John	Observation of water-window soft X-ray emitted from laser plasmas generated in N2 gas atmospheres
LP-26	Ryo Sato	Uniform implosion of fuel target in heavy ion fusion
LP-27	Hiroki Nakamura	Fuel pellet alignment control in heavy-ion inertial fusion reactor
LP-28	Ken Uchibori	Influence of beam non-uniformity on fuel implosion in heavy ion inertial fusion

<b>L-5 [Nov15(Thu), 16:40-18:50], Room T2, laser-plasma interaction (1), Chair: Frederico Fiuza, Invited 25min, Oral 15min</b>		
L-I17	William Fox	Turbulent magnetic reconnection initiated by kinetic instabilities in colliding laser-produced plasmas
L-I18	Suming Weng	Magnetic controlling of high-power laser pulses and their interactions with plasmas
L-I19	Gianluca Sarri / A. Alejo	Experimental signatures of the quantum nature of radiation reaction in the field of an ultra-intense laser
L-I20	T.Zh.Esirkepov	Structurally determined patterns of electrons in colliding super-intense laser beams
L-O9	Mikhail Garasev	Long-term consistent evolution of electron and ion currents generated via the Weibel instability in a plasma with temperature anisotropy
L-O10	Liangliang Ji	Laser-electron colliding at extreme light intensities

G. Sarri(L-I19) will be given by Aaron Alejo,

<b>L-6 [Nov16(Fri), 8:20-10:30], Room CB+CC, High-power laser-plasma interaction (2), Chair: Ravindra Kumar, Invited 25min, Oral 15min</b>		
L-I21	Alexey Arefiev	Leveraging extreme laser-driven magnetic fields for intense gamma-ray generation
L-I22	Ram Gopal	Intense Laser Plasma interactions with kHz, mJ class lasers
L-I23	Natsumi Iwata	Physics of relativistic picosecond laser interaction with dense plasma
L-I24	Joerg Schreiber	Relativistic laser interaction with isolated micro-plasma
L-O11	Yasuhiro Kuramitsu	Experimental investigation on induced Compton scattering of laser produced plasmas in extremely high brightness temperature
L-O12	Lihua Cao	Intense Short Laser Interactions with Tailored Structured Targets

## 2.6 Space/Geomag Plasma Program

<b>SG-1 [Nov12(Mon), 14:00-16:10], Room TA, Solar wind and turbulence , Chair: LC Lee /YM Wang Y, Invited 25min, Oral 15min</b>		
SG-I1	Yuming Wang	On the twist of magnetic flux ropes in the corona and solar wind
SG-I2	Tohru Hada	Anomalous transport of cosmic rays in MHD turbulence
SG-I3	Shuichi Matsukiyo	Microstructure of high beta quasi-perpendicular shock and associated electron dynamics
SG-I4	Lou-Chuang Lee	Observational, theoretical and simulation studies on EMIC waves generated by fast shocks in the magnetosphere and solar wind
SG-O1	Kirollos Girgis	Solar Wind Effects on South Atlantic Anomaly
SG-O2	Jungjoon Seough	Collisionless regulation mechanism of solar wind electron heat flux

<b>SG-2 [Nov12(Mon), 16:40-18:50], Room TA, Magnetosphere , Chair: Y. Omura/ XS Feng, Invited 25min, Oral 15min</b>		
SG-I5	Yoshiharu Omura	Dynamic variation of Earth's outer radiation belt due to whistler-mode chorus and EMIC waves
SG-I6	Kunihiro Keika	Mass and charge dependent characteristics of Earth's magnetospheric plasma
SG-I7	Meng Zhou	Magnetospheric Multiscale observations of magnetic reconnection in the Earth's magnetosphere
SG-I8	Liuyuan Li	Compression-amplified EMIC waves and their effects on relativistic electrons
SG-O3	Gerard Chanteur	A possible source of the Hermean magnetospheric plasma
SG-O4	Md Rasel Hossen	Electrostatic shock dynamics in dense plasmas

<b>SG-3 [Nov13(Tue), 16:40-18:50], Room TC, Topic:Ionosphere and MI coupling, Chair: D. Baker/ Z.G. Yuan, Invited 25min, Oral 15min</b>		
SG-I9	Hamid Saleem	Excitation of ion acoustic waves and formation of nonlinear structures in O-H plasma of upper ionosphere
SG-I10	Aimin Du	Polar Cap Potential Saturation and Ionospheric Convection Patterns during Superstorms
SG-I11	Igor Levchenko	Space Plasma Propulsion for Cubesats and small satellites
SG-I12	Shiyong Huang	Observations of Electron Vortex Magnetic Holes in Turbulent Magnetosheath Plasmas
SG-O5	Amar Kakad	Modulation of electromagnetic ion cyclotron waves by Pc5 ULF waves and energetic ring current ions
SG-O6	Jun Zhong	MESSENGER Observations of Magnetic Reconnection in Mercury's Magnetosphere

Shiyong Huang (SG-I12) cancel.

<b>SG poster-1, CA+CB</b>		<b>[Nov14(Wed), 14:00-18:50, Authors to be at poster during 16:40-18:50]</b>
SGP-1	Bheem S. Jatav	Numerical Simulation of Kinetic Alfvén wave for Intermediate- $\beta$ plasma to study localized structures in auroral region
SGP-2	Safi Ullah	Case study of electron temperature effect on simultaneously observed VHF and UHF PMSE
SGP-3	Hong-Yu Wang	The Plasma Charging for Object in Space: Multiple Time Scale Simulation
SGP-4	Tohru Shimizu	A New Viewpoint for Linear Theory of Tearing Instability
SGP-5	Ashesh Paul	Ion Acoustic Supersolitons in a Collisionless Unmagnetized Plasma Consisting of Nonthermally Distributed Electrons and Positrons

<b>SG-4 [Nov14(Wed), 14:00-16:10], Room TB, Wave-particle interaction, Chair: B. Tsurutani/M. Zhou, Invited 25min, Oral 15min</b>		
SG-I13	Xuzhi Zhou	Resonant interactions between charged particles and ULF waves: theory and observations
SG-I14	Hyomin Kim	Van Allen Probes observations of wave and particle dynamics in the ring current of the Earth's magnetosphere
SG-I15	Bruce Tsurutani	The Evolution of Cometary and Interplanetary Plasma Turbulence From Experimental Observations: A New Scenario
SG-I16	Yoshizumi Miyoshi	Relativistic electron acceleration in Earth's Van Allen Belt: Observations from the Arase satellite
SG-O7	Naila Noreen	Electron Contribution in Mirror mode Instability in Quasilinear Regime
SG-O8	Bharati Kakad	Characteristics of subpacket structures in Ground EMIC waves at Indian Antarctic station

<b>SG-5 [Nov15(Thu), 14:00-16:10], Room TB, Observations and simulations , Chair: Y. Ebihara</b>		
SG-I17	Chris Crabtree	Nonlinear Whistler Wave Physics in the Laboratory and in the Radiation Belts
SG-I18	Takanobu Amano (U40 winner)	Three-dimensional Particle-In-Cell simulations for high mach number collisionless shocks
SG-I19	Jongho Seon	Space weather monitor KSEM on board the Korean geostationary satellite GEO-KOMPSAT-2A
SG-I20	Joerg Buechner	Enhanced rate and electron acceleration by the self-generated turbulence of strong guide field reconnection
SG-O9	Hailong Li	Effect of energetic particle precipitation on electron temperature in the E-region of ionosphere
SG-O10	Abhijit Sen	Electromagnetic precursor excitations from a moving charged object

<b>SG poster-2, CA+CB</b>		<b>[Nov15(Thu), 14:00-18:50, Authors to be at poster during 16:40-18:50 ]</b>
SGP-6	Abdur Rauf	Average characteristics of polar mesosphere winter echoes observed by EISCAT VHF 224MHz radar
SGP-7	Hailong Li	Characteristics of polar mesosphere summer echoes observed with different elevation angle
SGP-8	Liqiu Wei	Progress of plasma instability in Hall thrusters in CHINA
SGP-9	Jiwon Choi	Distortion of the ULF wave signal in low Earth orbit
SGP-10	Bin Wang	EM Wave Attenuation Characteristics in Uniform and Non-Uniform Space Dusty Plasma
SGP-11	Hao Luo	Dependence of the Spring-Autumn asymmetry in geomagnetic activity on the solar main dipole magnetic field polarity over last 140 years
SGP-12	Mengxia Yu	Preliminary analysis about internal relationship of mean PMSE at VHF and UHF band

<b>SG-6 [Nov16(Fri), 8:20-10:30], Room TA, Waves and Instabilities , Chair: L. Chen / X.H. Deng , Invited 25min, Oral 15min</b>		
SG-I21	Yasuhiro Nariyuki	Damping processes of large amplitude Alfvén waves in the solar wind
SG-I22	Eun-Hwa Kim	Full-wave modeling of ULF wave propagation in the Earth's magnetosphere
SG-I23	Akira Kageyama	MHD relaxation and dynamo in a sphere
SG-I24	Vipin K Yadav	Plasma Waves in Universe
SG-O11	Zhong-Xi Ning	A low power micro-thruster: hollow cathode thruster
SG-O12	Jiwon Choi	A finite lifetime of poloidal Alfvén waves in the dipole model

## 2.7 Solar/Astro Plasma Program

<b>SA-1 [Nov12(Mon), 14:00-16:10], Room TB, Particle acceleration and heating, Chair: R. Matsumoto, Invited 25min, Oral 15min</b>		
SA-I1	Dongsu Ryu	PIC simulations of collisionless shock waves in clusters of galaxies
SA-I2	Allard van Marle	Using combined PIC and MHD to model particle acceleration in galaxy cluster shocks
SA-I3	Yutaka Ohira	Particle accelerations, plasma instabilities, and collisionless shocks in partially ionized plasmas
SA-I4	Jansen He	Energy dissipation and distribution among particle species for Alfvénic turbulence at kinetic scales in wavenumber space
SA-O1	Yohei Kawazura	Ion versus electron heating in astrophysical gyrokinetic turbulence
SA-O2	R.P.Prajapati	Neutrino-beam-plasma interactions in gravitating dense quantum plasma
Y. Matsumoto(SA-O1-> LPL-3), Y. Kawazura(SAP-2->SA-O1)		
<b>SA-2 [Nov12(Mon), 16:40-18:50], Room TB, Wave propagation, Mass ejections, Bursts , Chair: P.F. Chen, Invited 25min, Oral 15min</b>		
SA-I5	Paul Cally	Stairway to Heaven: Multistage propagation of Waves from the Solar Interior to the Corona
SA-I6	Jun Lin	Multiple-Scale Physics of Coronal Mass Ejection
SA-I7	Shin Toriumi	How Can We Create Flare-producing Sunspots?
SA-I8	Yao Chen	Observational Characteristics and Possible Emission Mechanism of Moving Type-IV Solar Radio Bursts
SA-O3	<del>Guoqing Zhao</del>	<del>Electron-cyclotron maser emission in the presence of turbulent Alfvén waves and its applications in solar radio bursts</del>
SA-O4	Kazunari Shibata	Quasi-periodic Oscillations in Solar Flares and Coronal Mass Ejections Associated with Magnetic Reconnection
Zhao (SA-O3) cancel.		
<b>SA-3 [Nov13(Tue), 16:40-18:50], Room TB, Star formation and Interstellar medium, Chair: Dongsu Ryu, Invited 25min, Oral 15min</b>		
SA-I9	Daniel Price	Modelling star formation from first principles: Magnetic fields and the birth of the Sun
SA-I10	Yusuke Tsukamoto	The formation of protostars and protoplanetary disks with all the three non-ideal MHD effects
SA-I11	Kazunari Iwasaki	The phase transition dynamics and the formation of magnetized molecular clouds in the interstellar medium
SA-I12	Jungyeon Cho	Measuring properties of magnetic fields in astrophysical fluids
SA-O5	Nobumitsu Yokoi	Multiple-scale analysis of turbulent transport in highly compressible magneto hydrodynamic plasma flows
SA-O6	Takumi Ohmura	MHD simulations of astrophysical jets including electron energy time evolution
<b>SA poster-1, CA+CB [Nov14(Wed), 14:00-18:50, Authors to be at poster during 14:00-16:10]</b>		
SAP-1	R.K. Chhajlani /Prajapati	Hydromagnetic instability analysis in dense astrophysical quantum plasma
SAP-2	<del>Yohei Kawazura</del>	<del>Ion versus electron heating in astrophysical gyrokinetic turbulence</del>
SAP-3	Amit Lad	Intense laser produced mega-gauss magnetic fields at the rear side of thin targets
SAP-4	Takuma Katou	Non thermal electron acceleration in the shock transition region
SAP-5	Yashika Ghai	Landau damping of ion acoustic waves due to neutrinos
SAP-6	Kiyoto Shibazaki	Magnetic moment of thermal plasma: Revisiting the Bohr-van Leeuwen theory
Kawazura(SAP-2->SA-O1), SAP-1 presented by Prajapati		
<b>SA-4 [Nov14(Wed), 16:40-18:50], Room TB, Prominences, Dynamo, Seismology, Chair: K. Shibata, Invited 25min, Oral 15min</b>		
SA-I13	Chun Xia	MHD simulations on the origin and dynamics of solar prominence plasma
SA-I14	Rony Keppens	Magnetic reconnection during eruptive magnetic flux ropes
SA-I15	Hideyuki Hotta (U40 winner)	High Resolution Simulations of Solar Convection Zone and Dynamo
SA-I16	Alina Donea	Waves and solar flare seismology from photosphere to corona
SA-O7	Gopal Hazra (U30 winner)	A theoretical model of the variation of the meridional circulation with the solar cycle
SA-O8	Yuhao Zhou	MHD simulations on the formation of filament threads
<b>SA poster-2 , CA+CB Nov15(Thu), 14:00-18:50, Authors to be at poster during 14:00-16:10</b>		
SAP-7	Anton Nechaev	Analytical theory of neutral current sheets with a sheared magnetic field separating homogeneously magnetized plasma regions
SAP-8	Takuma Tomiyoshi	Magnetohydrodynamic Simulations of the Formation of Galactic Prominence
SAP-9	Kazuya Shimomura	Excitation of kinetic Alfvén wave driven by collisionless magnetic reconnection with strong guide field
SAP-10	Yikang Wang	MHD simulation of Alfvén wave propagation in magnetized solar chromosphere: effect of mode coupling on solar chromosphere heating
SAP-11	Kojiro Ono	Radio-band visualization of the MHD simulations for the astrophysical jet
<b>SA-5 [Nov15(Thu), 16:40-18:50], Room TB, Magnetic reconnection, Flares , Chair: R. Keppens, Invited 25min, Oral 15min</b>		
SA-I17	Xin Cheng	Observations of Turbulent Magnetic Reconnection within a Solar Current Sheet
SA-I18	Hui Tian	Observations of magnetic reconnection in the partially ionized lower solar atmosphere
SA-I19	Tetsuya Magara	Evolution of Solar Magnetic Fields - From Emergence to Eruption
SA-I20	Shinsuke Takasao	Flares on the sun and young stars
SA-O9	Lei Ni	Magnetic reconnection in the strongly magnetized regions of the low solar chromosphere within the reactive multi-fluid plasma-neutral model
SA-O10	Seiji Zenitani	A scaling model for plasmoid-dominated turbulent reconnection
<b>SA-6 [Nov16(Fri), 8:20-10:30], Room TB, Accretion, Galactic center, Neutron star, Chair: X. Bai, Invited 25min, Oral 15min</b>		
SA-I21	Feng Yuan	Outflow from black hole accretion flow
SA-I22	Takeru Suzuki	Magnetic Activity in the Galactic Center Region
SA-I23	Cong Yu	Twisted induced Eruptions in magnetars
SA-O11	Donald Melrose	What is the pulsar radio emission mechanism?
SA-O12	Taichi Igarashi	Global Radiation Magnetohydrodynamic Simulations of Hard-to-Soft Transition in Black Hole Accretion Flows
SA-O13	Yura Asahina	Development of a general relativistic radiation magnetohydrodynamical code based on solving Boltzmann equation

## 2.8 Magnetic Fusion Plasma Program

<b>MF1-1 [Nov12(Mon), 14:00-16:10], CCI Hall, Topics: Overview and others, Chair: Xuru Duan, Invited 25min, Oral 15min</b>		
MF-I1	Alberto Loarte	The ITER Research Plan and supporting R&D in present experiments
MF-I2	Yeongkook Oh	Status and plan of the KSTAR program to explore the physics in steady-state high beta operation to assess the ITER and K-DEMO operations
MF-I3	Min Xu	Recent advances in the HL-2A experiments
MF-I4	Piero Martin	Overview of the Divertor Tokamak Test Facility Project
MF-O1	Mitsuru Kikuchi	L-mode-Edge Negative Triangularity Tokamak (NTT) Reactor
MF-O2	Kenji Tanaka	Isotope effects on transport and turbulence in ECRH plasma of LHD

<b>MF2-1 [Nov12(Mon), 14:00-16:10], Room CA, Topics: MHD, Chair: Hiroshi Yamada, Invited 25min, Oral 15min</b>		
MF-I25	Hyeon K Park	Role of magnetic shear on the core MHD instabilities (1/1 kink and high order tearing modes) in the tokamak plasmas
MF-I26	Woochang Lee	Study of quasi-coherent modes in KSTAR ECH and ohmic plasmas
MF-I27	HuiShan Cai	influence of toroidal rotation on neoclassical tearing modes
MF-I28	Matteo Baruzzo	JET disruption mitigation and avoidance in support of DT operation and ITER
MF-O13	Gianluca Pucella	Tearing Modes in neon seeding experiments in JET hybrid plasmas
MF-O14	Matt Thompson (U30 winner)	High Flux Plasma Interactions with Materials

<b>MF1-2 [Nov12(Mon), 16:40-18:50], Room CCI Hall, Topics: TC, Chair: Mitsuru Kikuchi, Invited 25min, Oral 15min</b>		
MF-I5	Hiroshi Yamada	Exploration of isotope effects on thermal and particle transport in Large Helical Device
MF-I6	Yang Ren	Experimental Observation of High-k Turbulence Evolution across L-H Transition in NSTX
MF-I7	Xingquan Wu	Modeling research of isotopic effect on H-mode threshold power for tokamak plasma
MF-I8	Jun Cheng	Pedestal dynamics during high-intermediate-high confinement transitions on HL-2A
MF-O3	Domenico Frigione	Response of particle transport to Neon Injection in JET and FTU
MF-O4	DongMei Fan	Impact of turbulent fluctuations on neutral particles transport with the TOKAM3X-EIRENE turbulence code

<b>MF2-2 [Nov12(Mon), 16:40-18:50], Room CA, Topics: MHD, Chair: Raffi Nazikian, Invited 25min, Oral 15min</b>		
MF-I29	Linjin Zheng	MHD Stability of Negative Triangularity Tokamaks
MF-I30	Young-Seok Park	Investigation of MHD instabilities and active mode control supporting disruption avoidance on KSTAR
MF-I31	Saskia Mordijck	Role of fueling versus transport in determining the core density profile
MF-I32	Sven Wiesen	Modelling radiative power exhaust in view of DEMO relevant scenarios
MF-O15	K. Ichiguchi	Numerical simulation of interaction between global flow and interchange modes in heliotron plasmas
MF-O16	Dalong Chen	Disruption mitigation with high-pressure argon gas injection on EAST tokamak

<b>MF2-3 [Nov13(Tue), 14:00-16:10], Room T2, Topics: TC, Chair: Min Xu, Invited 25min, Oral 15min</b>		
MF-I33	Jonathan Citrin	First-principle-based and tractable flux-driven turbulent tokamak transport modelling
MF-I34	Warner Felix	Transport and confinement in Wendelstein 7-X divertor plasmas
MF-I35	Ahmed Diallo	Energy Exchange Dynamics across L-H transitions in NSTX
MF-I36	Seung-Gyou Baek	Observation of efficient lower hybrid current drive at reactor-level densities on Alcator C-Mod
MF-O17	Laurie Porte	Effect of Shaping on Fluctuations in TEM Dominated TCV Plasmas
MF-O18	Ting Long	Poloidal rotation driven by turbulent residual stress in the edge of HL-2A tokamak plasmas

<b>MF Poster-1, CA+CB [Nov13(Tue), 14:00-18:50]</b>		
<b>Topics: MHD and others,</b>		<b>[14:00-16:10: Authors to be at poster]</b>
MFP-1	Liqing Xu	Kink Mode Study in EAST High $\beta_P$ Plasma
MFP-2	Hailin Zhao	Ideal kink and neoclassical tearing mode identification with high-resolution ECE on DIII-D and EAST tokamak
MFP-3	Kouhei Yasuda	Stabilization of tokamak plasma position by the local helical coils in TOKASTAR-2
MFP-4	Tanmay Macwan	Observation and Characterization of Low Frequency Density Fluctuation in ADITYA Tokamak
MFP-5	Shuai Gu	Plasma Response to RMP and its Effect on ELM Control in EAST
MFP-6	Trang VU	Tokamak-agnostic actuator management for integrated control
MFP-7	Roberto Paccagnella	Relaxation, Single Helical states and toroidal geometry effects in RELAX
MFP-8	Noboru Kamuki	Computational Design of Next Generation Fusion Reactor FFHR
MFP-9	Ryosuke Sakai	Improvement of Plasma Models in the System Code of Fusion Reactor PEC
MFP-10	Jiansheng Hu /G. Zuo	Developments and experiments of D2 pellet injector on EAST
MFP-11	Ahmad Ali	Plasmoid Formation During Sawtooth Process in a Cylindrical Tokamak Configuration
MFP-12	Jieun Lee	Nonmodal solitary perturbation prior to the collapse of edge pedestal in high-confinement tokamak plasmas
MFP-13	Wei Yan	Study of argon impurity transport by X-ray imaging crystal spectrometer on J-TEXT
MFP-14	You Li	First experimental result of disruption mitigation by shattered pellet injection on J-TEXT tokamak
MFP-15	Kento Miyamae	Remarks on DD start-up of a fusion reactor
MFP-16	Peng Shi	First time observation of local current shrinkage during the MARFE behavior on the J-TEXT tokamak

Macwan(MFP-4) cancel. J. Hu(MFP-10) will be presented by Guizhong Zuo

<b>MF1-3 [Nov13(Tue), 16:40-18:50], Room CCI Hall, Topics: ELM &amp; MHD, Chair: YK Oh, Invited 25min, Oral 15min</b>		
MF-I9	Andrew Kirk	Access conditions for ELM suppression in ASDEX Upgrade using Resonant Magnetic Perturbations
MF-I10	Francois Orain	Non-linear modeling of the threshold between ELM mitigation and ELM suppression by resonant magnetic perturbations in ASDEX Upgrade
MF-I11	Juhyeok Jang	Krypton-induced ELM suppression and internal transport barrier in KSTAR plasmas
MF-I12	Hyungho Lee	Divertor target heat and particle flux dynamics during long term RMP-ELM suppressed regimes in KSTAR

MF-O5	Huihui Wang	Theoretical understanding of error field penetration in EAST
MF-O6	Da Li	Recent progresses on the RMP researches towards active control of tearing mode in the J-TEXT tokamak

<b>MF2-4 [Nov14(Wed),14:00-16:10], Room T2, Topics: Physics related to Magnetic perturbation, Chair: Hyeon Park, Invited 25min, Oral 15min</b>		
MF-I37	Raffi Nazikian	Wide-pedestal grassy-ELM regime using edge-resonant magnetic perturbations in the DIII-D tokamak
MF-I38	Jaehyun Lee	Increase of turbulent fluctuations and perpendicular flow bifurcation At the transition to RMP-driven ELM-crash suppression
MF-I39	Fulvio Auriemma	Study of transport modulation by magnetic islands in different magnetic configurations
MF-I40	Jae-Min Kwon	Gyrokinetic Simulation Study of Magnetic Island Effects on Neoclassical Physics and Micro-Instabilities in a Realistic KSTAR Plasma
MF-O19	M.Meireni	The Characterization of Energetic Particle Beams Using Stark Broadening Analysis of Hydrogen Lines in Tokamak Edge Plasmas
MF-O20	Jo-Han Yu	V-band (55-75 GHz) MIR System-on-chip Advancement for Fusion Plasma Diagnostics

<b>MF poster-2, CA+CB</b>		<b>[Nov14(Wed), 14:00-16:10: Authors to be at poster] Divertor&amp;Edge&amp;Diagnostics</b>
MFP-17	Ryuichi Sano	Comparison of Neon and Carbon spatial distribution in detached divertor plasma of H-mode discharge in JT-60U
MFP-18	Arvind S. Jadon	Simulation Study of Effects of Lithium-based Divertor on Edge Plasma Dynamics inside the Tokamak
MFP-19	Matteo Vallar	Integrated physical assessment of DTT reference scenarios
MFP-20	Xiaoju Liu	<del>Studies of power exhaust for CFETR with GW level fusion power</del>
MFP-21	Andrey Ushakov	Effect of ITER UWAVS first mirror plasma cleaning on surface properties and re-deposition
MFP-22	Yingying Li/X.Wu	Indirect measurement of poloidal rotation and comparison with neoclassical theory on EAST
MFP-23	Prakash Gautam	Measurement of Model parameters to optimize High-Performance Plasma Focus NX1 and NX2 Operated in Neon
MFP-24	Luigi Cordaro	Neutron-gamma measurements at the Madison Symmetric Torus
MFP-25	Takehiko Esaka	Estimating the emission spectra of W <sup>23+</sup> - W <sup>30+</sup> by the numerical decomposition of multiple spectra observed from LHD plasmas
MFP-26	Minmin Xue	Fiber optical current sensor (FOCS) for plasma current on EAST tokamak
MFP-27	Atsunori Yanamoto	Robust regression method for LHD charge exchange spectroscopy data with heteroscedastic noise
MFP-28	Ad Verlaan	TNO Optical system design and analysis for fusion diagnostics
MFP-29	Takuya Osugi	Statistical Analysis of Hydrogen Recycling in the Peripheral Region of LHD
MFP-30	Ting Wu	Effect of RMP on boundary plasma turbulence in JTEXT tokamak
MFP-31	Qinghong Cao	2D High-Resolution Magnetic Field Measurement of the Merging Tokamak Plasmas in New Reconnection Experiment: TS-6
MFP-32	Shun Kamiya	Development of Two-Dimensional Thomson Scattering on TS-6
MFP-33	Mohammed Koubiti	Hydrogen radiation emission as a synthetic diagnostic for magnetic fusion diverter plasmas

X. Liu (MFP-20) cancel. MFP-22 will be presented by Xingquan Wu.

<b>MF1-4 [Nov14(Wed),16:40-18:50], Room CCI Hall, Topics: MHD &amp; EPM , Chair: T. Fujita, Invited 25min, Oral 15min</b>		
MF-I13	Yi Liu	Recent Progress in Studies of MHD activities and their Control on HL-2A tokamak
MF-I14	Elena Belova	Global Alfvén eigenmode scaling and suppression
MF-I15	Wei Chen	Suppression of m=1/1 fishbone and destabilization of m=2/1 fishbone activities during NBI on HL-2A
MF-I16	Ryosuke Seki	Comprehensive magnetohydrodynamic hybrid simulations of fast ion losses due to the Alfvén eigenmodes in the Large Helical Device
MF-O7	ByungJun Kang	Fast ion driven drift instability in reversed shear burning plasmas
MF-O8	Mmatteo Zuin	Alfvénic Activity in Reversed-Field Pinch Plasmas

<b>MF2-5 [Nov15(Thu),14:00-16:10], Room T2, Topics: Divertor physics, Chair: Yunfeng Liang, Invited 25min, Oral 15min</b>		
MF-I41	Rui Ding	Recent progress in understanding of high-Z material erosion and re-deposition in tokamaks with a mixed materials environment
MF-I42	Fang Ding	Active Control of Plasma Wall Interaction and Core Impurity toward High Performance Long Pulse Operation in EAST
MF-I43	Atsushi Ito	The growth of tungsten fuzzy nanostructure by BCA-MD-KMC multi-hybrid simulation
MF-I44	JianBin Liu	H-mode detachment with ITER-like tungsten divertor operation in EAST
MF-O21	Guizhong Zuo	Reduction of H content and particle recycling with mixed graphite and tungsten divertors for long-pulse and high performance plasma in EAST
MF-O22	Jeongwon Lee	- Plasma burn-through simulation for ITER first plasma phase operation using DYON - Implementation of ECH power absorption model to DYON and its validation in KSTAR - Development of n=1 locked mode detection scheme using lock mode coil in KSTAR

<b>MF poster-3, CA+CB</b>		<b>Nov15(Thu) 14:00-18:50, Authors to be at poster during 14:00-16:10</b>
MFP-34	Tianyang Xia	The simulating studies on the turbulence inward spreading from edge transport barrier in real tokamak
MFP-35	Masanori Nunami	Kinetic simulation studies on particle transport in multi-species plasma
MFP-36	Italo Predebon	Electron temperature gradient driven instabilities in helical reversed field pinch plasmas
MFP-37	Michele Marin	Isotope-mixing at JET: experiments and modelling
MFP-39	Lei Qi	Nonlinear gyrokinetic analysis of linear Ohmic confinement to saturated Ohmic confinement transition
MFP-40	Karel-van-de Plassche	Using neural networks for realtime capable turbulent transport modelling
MFP-41	Shinsuke Satake	Development of a global neoclassical transport simulation for multi species plasmas in helical configuration
MFP-42	Aaron Ho	Turbulent transport model validation at JET using integrated modelling enhanced by Gaussian process regression
MFP-43	Yixuan Zhou	Observation of intrinsic toroidal rotation in EAST's plasma with the ion internal transport barrier
MFP-44	Dong-Ho Park	Magnetic island structure effect on runaway electron confinement
MFP-45	Hisato Kawashima	Compatibility of low separatrix density and divertor heat load at a JT-60SA H-mode operation scenario using SONIC multi-impurity Monte-Carlo model
MFP-46	Eun-Hwa Kim	2D full-wave simulations of high harmonic fast waves in the scrape-off layer of NSTX/NSTX-U
MFP-47	Shabbir A. Khan	Integro-differential full wave analysis of electron cyclotron resonance interactions in a tokamak plasma
MFP-48	Jeongwon Lee	- Plasma burn-through simulation for ITER first plasma phase operation using DYON - Implementation of ECH power absorption model to DYON and its validation in KSTAR - Development of n=1 locked mode detection scheme using lock mode coil in KSTAR
MFP-49	René Bussiahn	Development and Initial Results of a Tracer-Encapsulated Solid Pellet (TESPEL) Injection System on Wendelstein 7-X
MFP-50	Seiya Kusaka	Effect of Kinetic Ions on the Electron Temperature Gradient Turbulence in Slab and Toroidal Geometries

Roudaki (MFP-38) cancel

<b>MF1-5 [Nov15(Thu), 16:40-18:50], Room CCI Hall, Topics: ITER &amp; DEMO, Chair: T. Donne, Invited 25min, Oral 15min</b>		
MF-I17	Rudolf Neu	Plasma Wall Interaction Research at IPP for ITER and beyond
MF-I18	Qingwei Yang	Progress of the HL-2M tokamak
MF-I19	Michael Reinhart	Progress in European research towards efficient Plasma-Facing Components for ITER and DEMO
MF-I20	Francesco Maviglia	Overview of DEMO Technology and Scenario Design activities in Europe
MF-O9	Bojiang Ding	Lower hybrid current drive studies towards long-pulse plasma with high performance in EAST
MF-O10	Lin Nie	Experimental evaluation of Langmuir probe sheath potential coefficient and the Bi-Maxwell electron on the edge of tokamak

<b>MF1-6 [Nov16(Fri), 8:20-10:30], CCI Hall, Topics: Discharge Scenario, Chair: Alberto Loarte, Invited 25min, Oral 15min</b>		
MF-I21	Kazuaki Hanada	Fuel particle balance for steady state operation on all-metal fusion experimental device, QUEST
MF-I22	Shinji Kobayashi	Study of operation scenarios for high density plasma formation in Heliotron J
MF-I23	Garcia Jeronimo	Optimization of high beta steady-state scenarios at TCV in support of JT-60SA
MF-I24	David Weisberg	Development and extension of the non-inductive high beta poloidal regime to ITER relevant dimensionless parameters on DIII-D
MF-O11	Hitoshi Tanaka	Non-inductive formation of overdense spherical tokamak plasmas by electron Bernstein waves in the LATE device
MF-O12	Wei Wang	Study of non-local turbulent transport and ExB staircase dynamics based on full-f flux-driven gyro-kinetic simulation

<b>MF2-6 [Nov16(Fri), 8:20-10:30], Room CA, Topics: Physics of Fueling and Current Drive , Chair: Youngkyoon In, Invited 25min, Oral 15min</b>		
MF-I45	Harshita Raj	Control of Magnetohydrodynamic modes by periodic gas-puffing in ADITYA and ADITYA-Upgrade Tokamak
MF-I46	Mengdi Kong	Integrated control on TCV including real-time monitoring, supervision and actuator management
MF-I48	Hiroshi Idei	Fully Non-inductive Electron Cyclotron Current Ramp-up with Focused 28GHz Beams in the QUEST Spherical Tokamak
MF-O23	Shohei Yamato	Extension of SONIC code toward mixed-impurity seeding capability
MF-O24	Tokihiko Tokuzawa	Observation of damped oscillating flow and momentum change associated with a pellet injection
MF-O25	Yoshiaki Ohtani	Investigation of parameter dependence of density profile peaking for H-mode positive magnetic shear plasmas in JT-60U



## 2.9 AAPPS-DPP Awards

### 2.9.1 2018 Subramanyan Chandrasekhar Prize of Plasma Physics

**Laureate: Toshiki Tajima (UC Irvine)**

**Citation:** For wide-ranging contributions to plasma physics, in particular for the discovery and invention of extremely intense (relativistic) laser-driven wakefields as robust and long-lasting plasma states, with broad impacts on high energy particle acceleration and other applications, including medicine; in which he exerted leadership to launch high field science and to form large new research communities.



Prof. Toshiki Tajima

### 2.9.2 2018 AAPPS-DPP Young Researcher Award

#### 1. Takanobu Amano (Space)

**Citation:** For his significant contributions to the simulation and theory of acceleration of non-thermal electrons in collisionless shocks in space and astrophysical plasmas.

#### 2. Hideyuki Hotta (Solar/Astro)

**Citation:** For fundamental contributions in demonstrating, via advanced high-resolution magnetohydrodynamic simulations, the important roles played by small-scale dynamo in the generation of the global-scale solar magnetic field.

#### 3. Yan Feng (Basic)

**Citation:** For seminal contributions in understanding the dynamics, transport and other properties of dusty plasmas via various experimental methods conducted in comprehensive and systematic approaches.

#### 4. Wulyu Zhong (Magnetic Fusion)

**Citation:** For significant scientific contributions to turbulent transport physics via a series of innovative particle and impurity transport studies in the experiments on HL-2A, Tore Supra and J-TEXT tokamaks.

#### 5. Zheng-Xiong WANG (Fundamental)

**Citation:** For fundamental contributions in delineating the nonlinear physics of resistive and neoclassical tearing mode instabilities and the generic mechanism of vortex flow induced stabilization of multi-scale microturbulence in tokamak plasmas.

#### 6. Chao Chang (Applied)

**Citation:** For seminal contributions to wave-plasma interaction in the areas of novel electromagnetic undulators for free electron lasers and microwave-driven window breakdown mechanisms.

#### 7. Wei-Min Wang (Laser)

**Citation:** For his pioneering contributions to the novel generation and characteristics studies of tera-hertz (THz) radiation using strong interactions of one or two-color laser pulse and a target.

### **2.9.3 2018 U30 Scientist and Student Award**

#### **1. Naoki Sato**

**Citation:** *For pioneering work to construct the statistical theory of topologically constrained systems by determining the geometric conditions under which a generalized form of the H-theorem can be satisfied.*

#### **2. Matt Thompson**

**Citation:** *For pioneering work in the application of Grazing Incidence Small Angle X-ray Scattering to the study of fusion materials to quantify sub-surface bubble formation and determine how this influences material properties.*

#### **3. Gopal Hazra**

**Citation:** *For significant contribution to theoretical understanding of the solar meridional circulation, the plasma flow and dynamo process inside the Sun, and its relation with the 11-year sunspot cycle.*

#### **4. Zhelin Zhang**

**Citation:** *For outstanding work in theory and experiment on generation and control of strong terahertz radiation from air plasmas which are produced by two-color lasers. The achievement is highly evaluated by the 2018 Award committee.*

#### **5. Tobias Dornheim**

**Citation:** *For inventing the permutation blocking path integral Monte Carlo method for the ab initio simulation of warm dense electron gas and constructing the key ingredient in warm dense matter physics.*

#### **6. Modhuchandra Singh Laishram**

**Citation:** *For outstanding theoretical and numerical works on vortex characteristics of steady state multiple vortices observed in dusty plasma experiments and relevant driven-dissipative natural flows.*

## 2.10 Publication

*Plenary and Invited speakers are encouraged to submit review article to AAPPS-DPP official journal, RMPP (Reviews of Modern Plasma Physics). All speakers are encouraged to submit one's original work to PFR (Plasma and Fusion Research).*

Review papers related to the conference topics are encouraged to submit to AAPPS-DPP official journal RMPP (Reviews of Modern Plasma Physics) at

<https://www.springer.com/physics/atomic,+molecular,+optical+&+plasma+physics/journal/41614>

Original articles related to the conference topics are encouraged to be submitted to Plasma and Fusion Research (PFR), which is an electronic open journal published by the Japan Society of Plasma Science and Nuclear Fusion Research. This journal is covered in J-STAGE, Scopus (Elsevier product), and Emerging Sources Citation Index (ESCI, Clarivate Analytics). Each submitted paper will be put through a peer-review process by the special guest editors, and those submissions that are accepted will be published as regular articles in the journal.

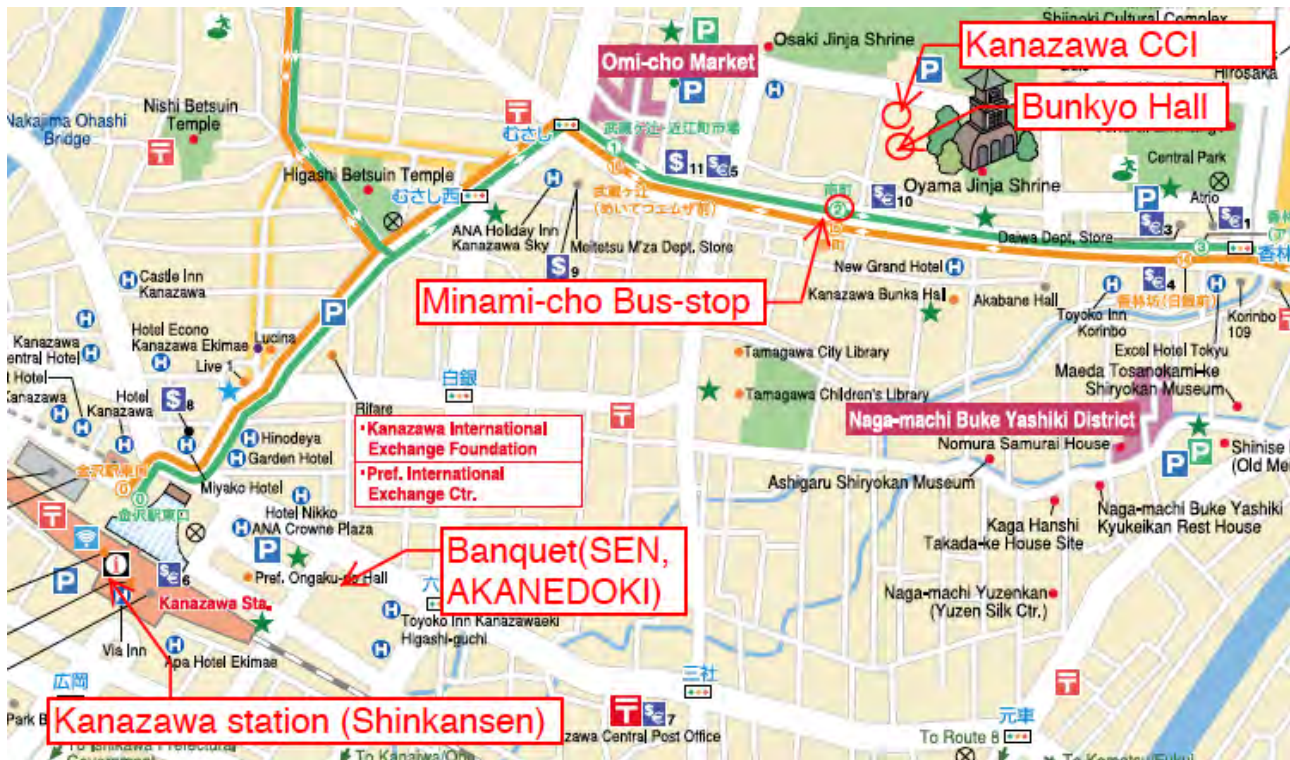
Note:

- 1) The first author of the proceedings paper is expected to be the same as the first author on the presentation at the conference.
- 2) The submission fee and the reprint fee are NOT included in the registration fee.
- 3) Please submit the article through the web.  
<http://www.jspf.or.jp/PFR/information.html>  
<https://www.editorialmanager.com/pfr/Default.aspx>
- 4) Maximum number of pages are as follows: Plenary/Invited/Oral: 8 pages, Poster: 4 pages
- 5) The submission deadline is Dec. 1.
- 6) Publication charge is shown in the following page.

The author is requested to pay publication charge of ¥3,000 Japanese Yen per article plus ¥5,000 Japanese Yen per page. For an article that exceeds 11 journal pages, a mandatory page charge of ¥10,000 Japanese Yen will be added for each page in excess of 11 pages.

### 3. Conference Dinner

There will be Bus to Banquet places (SEN and AKANEMORI) in front of CCI.



### 4. Conference Tour

*November 17 (Saturday), 2018*

## 5. Committees

International Organizing Committee (IOC)	
<b>IOC Chair:</b> Kunioki Mima (GPI)	
<b>IOC Co-chairs:</b> Mitsuru Kikuchi (QST), Baonian Wan (ASIPP), Hyeon Park (UNIST), Abhijit Sen (IPR)	
<b>IOC members:</b> Liu Chen (Zhejiang University)	
<b>Endorsed Societies:</b> John Cary (Colorado University, APS-DPP chair), Sadao Masamune (Kyoto Institute of Technology, JPS (Plasma)), Xiaogang Wang (Harbin Institute of Technology, CPS-DPP Chair), Hyyong Suk (GIST, KPS-DPP Chair), Prabal K Chattopadhyay (IPR, PSSI President), Kazunari Shibata (Kyoto University, ASJ President), Yasuharu Omura (Kyoto University, SGPSS Vice President), Yoshiaki Kato (GPI, LSJ President), Mineo Hiramatsu (Meijo University, JSAP-DPE Chair), Zensho Yoshida (University of Tokyo, JSPF President), Rajdeep S. Rawat (Nanyang Technological University, AAAPT President), Matthew Hole (ANU, Australian ITER Forum Chair)	
<b>Fundamental:</b> Akira Hasegawa (Osaka University), Robert Dewar (Australian National University), Patrick Diamond (University of California San Diego), Sanae-Inoue Itoh (Kyushu University), Chio-Zhong Cheng (National Cheng Kung University), Chuan Sheng Liu (University of Maryland), Yasushi Ono (University of Tokyo), Guoyang Fu (Zhejiang University), Taiku Soo Hahn (Seoul National University)	
<b>Basic:</b> Shin-Hung Chen (National Central University), Yasuaki Kishimoto (Kyoto University), Tomohiko Watanabe (Nagoya University), Rajaraman Ganesh (Institute for Plasma Research), Lin I (National Central University), A.A. Mamun (Jahangirnagar University), Yaming Zou (Fudan University), Kwo Ray Chu (National Taiwan University), Wonhoe Choe (KAIST), Chiow-San Wang (University of Malaya), Oi Hoong Chin (University of Malaya), Osamu Ishihara (Chubu University), Choong-Seock Chang (Princeton Plasma Physics Laboratory), Hiroshi Akatsuka (Tokyo Institute of Technology)	
<b>Applied:</b> Jung-Sik Yoon (NFRl), Masaharu Shiratani (Kyushu University), Rikizo Hatakeyama (Tohoku University), Francis F. Chen (University of California Los Angeles), Yi-Kang Pu (Tsinghua University), Masaharu Hori (Nagoya University), Paul Kim Ho Chu (City University of Hong Kong), Suk Jae Yoo (NFRl), Roderick Boswell (Australian National University), Ashish Gangul (Indian Institute of Technology), Deepak Prasad Subedi (Kathmandu University), Sor Heoh Saw (Nilai University), Mudtorlep Nisoa (Walailak University), S. Ling Yap (University of Malaya)	
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<b>Solar and Astro:</b> Ryoji Matsumoto (Chiba University), Kanya Kusano (Nagoya University), Peng-Fei Chen (Nanjing University), Dongsu Ryu (UNIST), Arnab Rai Chaudhuri (Indian Institute of Science), Jingxiu Wang (University of Chinese Academy of Science), Hantao Ji (Princeton University)	
<b>Magnetic Fusion:</b> Xuru Duan (SWIP), Yeong Kook Oh (NFRl), Takaaki Fujita (Nagoya University), Akio Komori (National Institutes of Natural Science), Tomohiro Morisaki (National Institute of Fusion Science), Mori Masahiro (QST), Shashank Chaturvedi (Institute for Plasma Research), Sibylle Guenter (Max Planck Institute for Plasma Physics), Richard J. Hawryluk (Princeton Plasma Physics Laboratory), Anthony Donne (EuroFusion), Alain Becoulet (CEA Cadarache), Tony Taylor (General Atomics), Francois Waelbloek (University of Texas), Ian Chapman (CCFE), Richard Dendy (University of Warwick, EPS-DPP chair),	
<b>APCTP:</b> Won Namkung (APCTP)	
<b>LOC:</b> Yoshihiko Uesugi (Kanazawa University)	



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<b>4. Applied (A) PC:</b> JS Yoon (Chair, NFRI), Shiratani (Co-chair, Kyushu University), YH Song (Co-chair, Dalian University of Technology), Osamu Sakai (The University of Shiga Prefecture), Eun Ha Choi (Kwangju University), Mohan Sankaran, (Case Western University), Holger Kersten, (Christian-Albrechts-Universität zu Kiel), Sudeep Bhattacharjee, (Indian Institute of Technology – Kanpur), Dheerawan Boonyawan (Chiang Mai University), Yap Seong Ling (University of Malaya), Rajdeep Singh Rawat (Nanyang Technological University), AB Murphy (CSIRO, NSW), Hernando S. SALAPARE III (University of the Philippines), XinPei Lu, Huazhong (University of Science & Technology)	
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<b>8. Magnetic fusion (MF) PC:</b> Xuru Duan (Chair, SWIP), Takaaki Fujita (Co-chair, Nagoya University), Yeong-Kook Oh (Co-chair, NFRI), Ge Zhuang (USTC), Min Xu (SWIP), Liang Wang (ASIPP), Kazunobu Nagasaki (Kyoto U.), Kenji Tanaka (NIFS), Kouji Shinohara (QST), Gunsu Yun (POSTECH), Siwoo Yoon (NFRI), Suk-ho Hong (NFRI), Joydeep Ghosh (IPR), Matthew Hole (ANU), Tuong Huang (CEA), George McKee (UW-Madison)	

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